



STAFFORDSHIRE COUNTY COUNCIL

Annual Report

OF THE

MEDICAL OFFICER *of* HEALTH

W. D. CARRUTHERS, M.B., D.P.H.

For the Year 1932

STAFFORD :

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Annual Report of the Medical Officer of Health

PRELIMINARY NOTE

The Annual Report for 1932 has been prepared in accordance with the suggestions of the Ministry of Health, and, unlike the periodical reports now required every five years, is not a survey report and deals only with the year in review. Therefore it should be read in conjunction with the Annual Report for 1930, which was the last survey report.

From a health point of view the year 1932 has been extremely favourable. The birth-rate is higher and the death-rate lower than that of England and Wales as a whole. There has been no serious epidemic of infectious disease during the year, and on referring to the tables of statistics it will be seen that fewer cases of pulmonary tuberculosis have been notified compared with last year, and the death-rate from this form of tuberculosis is the lowest yet recorded. This is a most satisfactory feature in view of the fact that the disease attacks those in the most active period of life, and the low death-rate is all the more remarkable because of the long period of industrial depression and the inevitable reaction that this must have on the social conditions generally.

In many of the Annual Reports during recent years we have had to record some diminution in the area of the administrative county, but this year is notable in that there has actually been a small increase due to the Tamworth Borough Extension which took in a neighbouring portion of Warwickshire.

During the year the County Council were able to open the Standon Orthopaedic Hospital, whereby they have been enabled to deal in their own Institution with practically all the cases of crippling defects, and it will be with much satisfaction that this extension of the facilities for the treatment of orthopaedic conditions will be noted.

In the Report some details will be found of the work of the Maternity and Child Welfare Scheme. Unfortunately, the efforts to reduce the maternal mortality rate have not yet been entirely effective, but, as has been stated in a previous Report, we cannot expect the full effect to be realised until the mothers themselves give their active co-operation, and this can only come about by the

slow process of education, for there is unhappily still a great reluctance on their part to take advantage of the ante-natal measures, which, experience has shown, prevents quite half the maternal deaths that now occur.

Again this year will be found a full and most interesting report on the work of the County Bacteriological Laboratory, which shows how essential its work is in any scheme of preventive medicine, and it also effects a further contribution of great value in co-ordinating curative with preventive medicine by bringing about the active co-operation of the general practitioners with the work of the Public Health Department.

The Report also shows that the work of the Chemical Laboratory has been further developed and now, in addition to the examination of samples under the Food and Drugs Acts, work sent by the County coroners is also undertaken.

Finally I would refer the reader to the epitome of work undertaken by local authorities on water and sewage disposal schemes, from which it will be seen how fully alive they are to the importance of proceeding with them in these difficult times.

Public Health Officers.

(a) *Medical.*

County Medical Officer of Health	1
School, Maternity and Child Welfare and Ante-natal Work :	
Senior Assistant Medical Officer (Whole-time) ..	1
Assistant Medical Officers (Whole-time)	15
" " Officer (Part-time)	1
County Ophthalmic Surgeon (Whole-time) ..	1
County Dental Officer (Whole-time)	1
Assistant Dental Surgeons (Whole-time)	10
General Practitioners (Maternity and Child Welfare only— one Centre per week)	3
Consultants under the Puerperal Fever and Puerperal Pyrexia Regulations and Consulting Obstetricians ..	5
County Venereal Disease Medical Officer	1
District Medical Officers under Poor Law Acts ..	81
Public Vaccinators	77
County Bacteriological and Pathological Laboratory :	
Medical Staff	2
Assistants and Staff	8
Standon Hall Orthopaedic Hospital :	
Medical Staff (House Surgeon)	1
" " (Visiting Surgeons)	2
Nursing Staff	38
Teaching Staff	3

(b) *Others.*

Veterinary Surgeons (Part-time)	19
County Chemical Laboratory :	
Analyst	1
Assistants and Staff	5
Sanitary Inspector and Assistant	2
Food and Drugs Inspectors	7

Vaccination Officers	35
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School, Maternity and Child Welfare and Ante-natal Work
and Tuberculosis Health Visiting :

Inspectors of Health Visitors (also act as Inspectors of Midwives)	..	..	..	..	3
Health Visitor Lecturers on Mothercraft	..	..	..	..	2
Health Visitors (Whole-time)	..	..	..	..	37
„ „ (Part-time)	..	..	..	..	46
School Nurses (Whole-time)	..	..	..	..	8
Dental Nurses	..	..	..	..	11

CHANGES SINCE 1930

(in List given in 1930 Annual Report).

Appointment of Assistant Bacteriologist and Pathologist :—T. V. Cooper, M.B., B.S., M.R.C.S., L.R.C.P.

Appointment of V.D. Medical Officer :—A. D. Frazer, M.B., Ch.B. (1.7.32).

Assistant Medical Officers :

Dr. Lambe left 17.7.32. Succeeded by W. S. Slater, M.B., Ch.B. M.R.C.S., L.R.C.P., D.P.H. (1.10.32).

General Practitioners :

Dr. Burd (deceased) succeeded by J. D. S. McGeoch, B.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P.

Health Visitors :

Miss Reeds left 29.3.32. Succeeded by Miss E. F. Surridge (27.4.32) (1.2.3.)

Miss Raynes left 19.4.31. Succeeded by Miss M. Whitaker (20.4.31). (1.2.3.4.)

Additional to Tamworth Borough—Miss M. Ryder (1.6.32) (1.2.3.)

Lecturer *vice* Miss Roberts—Miss S. K. Anderson (9.3 31) (2.5.)

Qualifications :

1. *Health Visitor's Certificate* (Approved by Ministry of Health, 1926), R.S.I.
2. *Trained Nurse.*
3. *Certificate of C.M.B.*
4. *Queen's Nurse.*
5. *Special experience Dietetics and Marasmic Children.*

Public Vaccinators :

NEWCASTLE M.B.; Parishes of Clayton and Keele (No. 11) R. W. Rae, M.B., Ch.B., *vice* W. Michael (1.4.31).

Parish of Silverdale (No. 15) P. G. Johnson, M.B., Ch.B., *vice* L. A. Daly (1.4.32).

Parishes of Croxden, Denstone and Rocester (No. 24) A. H. C. Hill, M.R.C.S., L.R.C.P., *vice* K. V. Smith (30.6.32).

Parishes of Gnosall and Church Eaton (No. 31) D. Hill, B.A., M.B., B.Ch., B.A.O. *vice* C. B. Davies (1.4.31).

Parishes of Brewood, Featherstone, Lapley, Stretton (No. 38) G. P. James, M.R.C.S., L.R.C.P., D.P.H., *vice* W. B. Kirkaldy (6.6.32).

Hednesford (No. 40) J. G. Mitchell, M.B., Ch.B., *vice* R. Holton (1.7.31).

Parishes of Alrewas, Elford, Haselour, Croxall, Edingale, Harlaston (No. 46) A. de la C. Russian, M.R.C.S., L.R.C.P., *vice* R. Chester (12.3.31).

Tettenhall U.D., with Parishes of Codsall and Wrottesley (No. 65) J. N. McTurk, M.D., M.B., Ch.B., *vice* F. A. Cooke (1.12.31).

The above-named also took over the offices of District Medical Officer.

District Medical Officer :

Chesterton, S. E. Smyth, M.B., B.Ch., B.A.O., *vice* F. P. S. Thomas (1.7.31).

This doctor was already the Public Vaccinator for the District.



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STAFFORDSHIRE COUNTY COUNCIL

Annual Report of the Medical Officer of Health

Summary of Statistics.

1.—GENERAL STATISTICS.

Area of Administrative County	(acres) 687,517
Population of Area (as constituted after changes in boundary)	(1932) 714,300
Population (for Birth and Death Rates) ..	(1932) 713,670
Rateable Value at 1st April, 1932..	£2,557,426
Estimated net product of a penny rate 1932-33	£9,800

2.—EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Total	M.	F.	
Live (Legitimate) ..	11,960	6,171	5,789	} Birth-rate 17.3	
Births (Illegitimate) ..	375	200	175		
Stillbirths	582	323	259	Rate per 1,000 total births 45.0	
Deaths	8,014	4,190	3,824	Death-rate 11.2	

Deaths from Puerperal Causes :—

	Deaths.	Rate per 1,000 total births.
Puerperal sepsis ..	21	1.6
Other puerperal causes	29	2.2
Total	50	3.9

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	69
Legitimate infants per 1,000 legitimate live births	69
Illegitimate infants per 1,000 illegitimate live births..	90

Deaths from Measles (all ages)	78
„ „ Whooping Cough (all ages)	56
„ „ Diarrhoea (under two years of age) ..	100

AREA AND POPULATION.

I have again to record an alteration both in area and population of the administrative county. Under the Tamworth Corporation Act, 1931, the provisions of which took effect on the 1st April, 1932, a portion of the County of Warwick was added to the Borough, the approximate area of which was 616 acres, with an estimated population, based on the 1931 census figures, of 2,517.

Under this Act portions of the administrative county were also transferred to the Borough, as follows :—

	Area in Acres. (Approx.)	Estimated Population (based on 1931 Census figures).
TAMWORTH RURAL DISTRICT :—		
Part of Parish of Fazeley ..	641	272
„ „ „ Wigginton	1,136	1,413

Under Section 46 of the Local Government Act, 1929, the undermentioned Orders were made and came into operation on the 1st April, 1932 :—

Borough of Newcastle under-Lyme (Extension Order, 1931).

Under this Order the boundary of the Borough was altered to include the following areas :—

Wolstanton United Urban District.
Part of Newcastle Rural District.
Part of Audley Urban District.

Staffordshire (North Western Areas) Order, 1931.

The following are the alterations in the areas of the Sanitary Districts which took effect on the 1st April, 1932 :—

<i>District.</i>	<i>Added Areas.</i>
Kidsgrove Urban ..	Portion of Audley Urban District.
Newcastle Rural ..	Portion of Audley Urban District. Blore Heath Rural District. Portion of Stone Rural District.
Stone Urban ..	Portion of Stone Rural District.

The estimated populations of the districts affected, as constituted at the 31st December, 1932, are shown in the tables at the end of the report.

As from the 1st April, 1932, the undermentioned Sanitary Districts ceased to exist :—

Audley Urban District.

Wolstanton United Urban District.

Blore Heath Rural District.

As regards the alteration of the boundary of the administrative county, the area has been increased by approximately 616 acres, with an approximate increase in population of 2,517.

As all deaths of persons serving with H.M. Forces are now allocated to their area of residence in the same manner as civilian deaths, the estimates of resident populations as supplied by the Registrar General have been used for the calculation of birth and death rates.

The Registrar General supplies a "standardising factor" for correcting death rates in districts with a population of over 10,000. The rates produced by this method are strictly comparable, the factor being based on the age and sex of the population as indicated at the last census. The standardised death rates in those areas in which this method can be applied are shown in the Tables at the end of the Report.

In the following table the census population of the administrative county for 1931, and the estimated population to the middle of 1932, are set forth :—

	Census, 1931	Estimated Population as at middle of 1932 of area as constituted at 31.12.32.
Urban	490,632	492,700
Rural	212,622	221,600
Total	*703,254	714,300

*The census population of the Administrative County as constituted at the 31st December, 1932, is greater than this figure by about 2,517 owing to the absorption of a portion of the County of Warwick into the Tamworth Municipal Borough.

BIRTHS.

The live births registered in the Administrative County numbered 12,335, compared with 12,752, the previous year, the number in the Urban Districts being 8,740 and in the rural districts 3,595 compared with 9,187 and 3,565 respectively.

Stillbirths. There were 582 stillbirths registered during the year, of which 396 were in urban and 186 in rural districts. The stillbirth rate per thousand of the population for the combined urban and rural districts is 0.81. During the same period the rate for England and Wales was 0.66 and for the large towns in England 0.70.

The mean birth-rates in the whole Administrative County and in the urban and rural districts respectively for eight quinquennial periods and for the past four years are shown in the following table, in which corresponding rates in England and Wales are included. It will be noted from a perusal of this table that the birth-rate has been steadily declining both in the county and throughout England and Wales as a whole, for the last ten years.

DISTRICTS		LIVE BIRTH-RATE PER 1,000 OF POPULATION											
		5 yrs 1889– 1893	5 yrs 1894– 1898	5 yrs 1899– 1903	5 yrs 1904– 1908	5 yrs 1909– 1913	5 yrs 1914– 1918	5 yrs 1919– 1923	5 yrs 1924– 1928	1929	1930	1931	1932
Staffordshire {	Combined Urban and Rural ..	33.6	33.2	32.5	30.3	27.8	24.0	24.1	20.2	18.4	18.6	17.9	17.33
	Urban	35.5	34.7	33.6	31.5	29.2	25.0	25.0	20.7	18.9	19.2	18.5	17.77
	Rural	30.2	30.5	30.2	27.0	24.4	21.6	22.0	19.0	17.4	17.3	16.6	16.33
England and Wales ..		30.8	29.7	28.7	26.9	24.5	20.4	21.3	17.8	16.3	16.3	15.8	15.33
Large Towns in England		31.5	30.7	29.7	27.8	25.2	*20.9	22.0	18.2	16.6	16.6	16.0	15.44

* 4 years.

DEATHS.

The number of deaths in the Administrative County amounted to 8,014, the number in the urban districts being 5,609 and in the rural districts 2,405.

In the following table comparative rates for eight quinquennial periods and for the past four years are given, together with corresponding figures for the country as a whole, and for large and small towns throughout England.

DISTRICTS		DEATH-RATE PER 1,000 OF POPULATION											
		5 yrs 1889- 1893	5 yrs 1894- 1898	5 yrs 1899- 1903	5 yrs 1904- 1908	5 yrs 1909- 1913	5 yrs 1914- 1918	5 yrs 1919- 1923	5 yrs 1924- 1928	1929	1930	1931	1932
Staffordshire	Combined Urban and Rural ..	18.1	16.9	16.1	14.6	14.1	15.0	12.3	11.4	12.8	10.9	11.7	11.2
	Urban ..	18.9	17.5	16.6	15.1	14.7	15.5	12.6	11.5	13.1	11.0	11.8	11.3
	Rural ..	16.8	15.7	15.1	13.4	12.7	13.8	11.6	11.2	12.1	10.7	11.4	10.9
England and Wales ..		19.1	17.4	16.9	15.3	13.9	15.2	12.5	12.0	13.4	11.4	12.3	12.0
Large Towns ..		21.0	19.0	18.2	15.8	14.3	15.5	12.6	12.0	13.7	11.5	12.3	11.8
Smaller Towns ..		17.6	15.9	15.7	14.9	13.6	14.1	11.5	11.0	12.3	10.5	11.3	10.8

The death rate per thousand of the population for this year is 11.2, whilst for England and Wales it is 12.0. On referring to the table which shows the death-rates of 44 years it will be observed that the death rate is slightly lower than that for last year and is favourable as compared with England and Wales as a whole.

In the following table I have shown the chief causes of death for the last ten years, the numbers given for 1932 being approximately 67.7 per cent. of the total deaths :—

TABLE SHOWING CHIEF CAUSES OF DEATH.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
*Zymotic Diseases ..	540	271	604	337	386	242	376	301	281	311
Influenza ..	166	427	325	185	532	116	570	131	311	221
Tuberculosis of Respiratory System ..	497	497	530	497	465	423	492	476	497	412
Tuberculosis, other forms	172	154	143	139	156	99	100	104	112	113
Cancer, Malignant Disease ..	716	639	790	785	803	851	899	912	897	915
Cerebral Hæmorrhage	485	487	542	464	465	430	462	431	477	510
Heart Disease ..	900	968	1053	1054	1047	1239	1448	1366	1500	1561
Bronchitis ..	644	687	648	544	650	395	622	352	485	369
Pneumonia ..	706	788	809	660	865	563	933	588	630	570
Congenital Debility, &c.	482	551	521	496	453	428	420	409	459	443

*Typhoid and Paratyphoid Fevers, Measles, Small-pox. Scarlet Fever, Whooping Cough, Diphtheria and Diarrhæa.

The chief cause of death in 1932, as in previous years, recorded in the table, is heart disease. On reference to this it will be observed that during the last ten years there has been a progressive increase in the number of deaths from heart disease, and whilst in 1923 there were 900, in 1932, 1,561 deaths were certified from this cause.

The following table has been prepared covering the last 13 years in which the percentage of deaths under 45 years of age is worked out in relation to the total deaths at all ages, and in the table the sexes are divided. It will be observed that though the percentage of deaths under 45 in males is slightly more than the figure for 1931, it is still further reduced in females.

The figures shown in this table for this county confirm the statement often made that the expectation of life is being gradually extended.

DEATHS UNDER 45 YEARS OF AGE—MALE AND FEMALE—SHEWING
PERCENTAGE OF TOTAL DEATHS (ALL AGES).

YEAR	MALE			FEMALE		
	Deaths all ages	Deaths under 45	% of Total	Deaths all ages	Deaths under 45	% of Total
1920	4626	2295	49.61	4084	1935	47.38
1921	4545	2120	46.64	3985	1759	44.14
1922	4534	1943	42.85	4191	1793	42.78
1923	4197	1816	43.27	3788	1556	41.08
1924	4332	1795	41.43	3906	1520	38.91
1925	4556	1919	42.12	4161	1724	41.43
1926	4148	1658	39.97	3808	1441	37.84
1927	4458	1766	39.61	4082	1564	38.31
1928	3965	1449	36.54	3563	1180	33.12
1929	4813	1827	37.96	4293	1453	33.84
1930	4100	1473	35.92	3672	1211	32.98
1931	4376	1472	33.64	3933	1272	32.34
1932	4190	1425	34.01	3824	1174	30.70

After the age of 45, heart disease becomes increasingly, year by year, the most important cause of death, and next to it is cancer. Bronchitis and pneumonia, as the statistics show, are also more fatal, but on the other hand tuberculosis has declined in recent years as a cause of death. With this in mind, and the information disclosed in the table, which shows that there is a tendency for the percentage of deaths under 45 to be smaller each year, it is obvious how important all measures are which will tend to reduce mortality from these diseases.

GENERAL PROVISION OF HEALTH SERVICES IN THE
AREA.

Local Government Act, 1929.

In my Report for 1931 I gave a full account of the proposals for dealing with the sick in the Administrative County. No alterations in this scheme have taken place, and plans are now being prepared for the conversion of the Newcastle and Wordsley Institutions into Hospitals of 400 beds each.

Poor Law Medical Out-Relief.

Since the transfer of this service, under the Local Government Act, 1929, to the County Council, its functions have been co-ordinated with the general Health Services of the County. Persons in need of treatment whose cases are referred in the first place to the Public Assistance Department, and who would formerly have been dealt with under the Poor Law Acts, are now referred, wherever possible, to the appropriate Committee of the County Council. Children form the majority of these cases, of course, and many of them have been dealt with during last year under the Council's Orthopaedic Scheme, and by the Education Committee.

Institutional Provision for the Care of Mental Defectives.

The only change in this was the resolution of the Council to increase the accommodation at the Sedgley Public Assistance Institution by the provision of 24 beds for chronic male mental cases with physical defects. Work has now been started on the building of the new block required—existing but disused buildings will be utilised in the scheme—and it is hoped that it will be in use in the near future.

NURSING IN THE HOME.

(a) General Nursing.

During the year two new local Nursing Associations have been formed for Alrewas and for Shareshill and Featherstone: otherwise there has been no change in the arrangements detailed in last year's report. There are now 81 local Nursing Associations affiliated to the County Nursing Association, and 11 who work independently. 73 of these Associations undertake midwifery in addition to general nursing.

(b) Infectious Diseases.

In the County Health Visiting Area, arrangements were made several years ago whereby local Medical Officers of Health, in the event of epidemics of measles or diarrhoea, could obtain the services of trained nurses to look after the cases in their own homes. Little advantage, however, has been taken of this arrangement, and during 1932 no application was received from any of the District Medical Officers of Health.

MIDWIVES.

The work undertaken under the Midwives Acts, 1902, 1918 and 1926, relates to the whole of the administrative county, with an estimated population at the middle of the year of 714,300, whilst the health visiting work is limited to the special health

visiting area of the county which now has a population of 308,360, as estimated by the Registrar General.

267 midwives notified their intention to practise during the year. Of these 262 were trained and 5 were bona-fide midwives. There is a reduction since last year of 6 trained and 4 untrained midwives. In addition to these, 91 midwives residing in County Boroughs and adjoining counties have also notified their intention to practise within the administrative county, compared with 85 last year, but only 64 of these actually practised.

The ages of midwives who were practising in the administrative county in the twelve years, 1921-1932, are indicated in groups in the following table, from which it will be observed that the majority are under 45 years of age :—

YEAR	21 to 44			45 to 64			65 & upwards			Totals.		
	North	Central	South	North	Central	South	North	Central	South	North	Central	South
1921..	58	52	60	28	22	23	21	21	16	107	95	99
1922..	51	64	68	21	21	21	14	16	14	86	101	103
1923..	55	59	66	21	27	18	14	16	11	90	102	95
1924..	50	56	62	22	26	19	14	11	12	86	93	93
1925..	54	64	63	27	24	23	13	8	10	94	96	96
1926..	50	63	74	26	26	15	13	9	9	89	98	98
1927..	55	57	72	26	30	15	6	5	8	87	92	95
1928..	58	60	79	24	29	13	3	5	5	85	94	97
1929..	50	59	79	28	27	17	4	6	5	82	92	101
1930..	54	63	65	26	23	20	4	5	5	84	91	90
1931..	56	59	78	27	26	20	4	4	3	87	89	101
1932..	53	57	59	27	28	34	4	2	3	84	87	96

The number of cases attended by midwives during 1932 in the three areas of the County are as follows :—

	No. of Midwives	Births attended	Total Births. (Live and Stillborn)	Percentage attended by Midwives	Mean number of cases attended per Midwife
North ..	84	2081	3050	68.2	24.8
Central ..	87	2715	3655	74.3	31.2
South ..	96	4825	6212	77.7	50.3

These do not include cases taken by midwives in their capacity as maternity nurses.

The total number of cases attended by midwives only in the administrative county during 1932, was 9,621, the number of live births registered being 12,335 and stillbirths 582. The percentage taken by midwives in the county is, therefore, 74.5 compared with 73.4 in the previous year. The midwives also attended 1,803 cases as maternity nurses, of which 608 were in the northern area, 520 in the central, and 675 in the south of the county. The proportion of the maternity cases to the total cases taken by midwives in their capacity either as midwives or maternity nurses in the three areas of the county is 22.6 per cent. in the northern, 16.1 per cent. in the central, and 12.3 per cent. in the southern area. The number of births that were not attended by midwives in their capacity as midwives or maternity nurses in the administrative county is 1,493, of which 361 are in the northern area, 420 in the central, and 712 in the south of the county.

In compliance with the rules of the Central Midwives Board, 4,145 notifications have been received from certified midwives in 1932 under the four headings set forth in the following table, which includes figures for comparison with the past 12 years, together with the number of births attended by midwives :—

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Number of Births attended by Midwives	12800	13033	11637	11382	11780	12201	10282	10523	10154	10115	9787	9621
Sending for medical help ..	1948	1992	1894	2083	2219	2523	2564	2764	3154	3505	3741	3755
Still Births ..	244	245	230	211	190	208	212	208	233	225	221	229
Death of Mother ..	4	1	5	4	11	20	6	13	17	10	17	11
Death of Child ..	39	29	20	61	60	70	115	117	127	142	140	150

The following table shows to what extent midwives have had occasion to call in medical assistance at confinements over a period of 18 years. From this it will be observed that there has been a large increase in this period of the requests for medical help, which

can be ascribed to the better trained type of midwife that is now practising. This is also reflected in the increase in the fees paid by the County Council to medical practitioners, as shown in a subsequent table.

NUMBER OF PRACTISING MIDWIVES, CONFINEMENTS TAKEN BY
MIDWIVES AND DOCTOR'S CALLS BEFORE, AT AND AFTER
CONFINEMENT, 1915—1932 :—

YEAR	No. of Practising Midwives	Trained	Not Trained	No. of Confinements taken by Midwives as Midwives	Doctors Calls (Mother or Child)	% of Medical Calls
1915	320	129	191	11,325	1,209	10.7
1916	307	137	170	10,632	1,291	12.1
1917	301	145	156	10,377	1,202	11.6
1918	288	152	136	10,174	1,165	11.4
1919	284	179	105	10,616	1,809	17.0
1920	286	181	105	13,770	1,769	12.8
1921	301	207	94	12,800	1,948	15.2
1922	290	224	66	13,033	1,992	15.3
1923	287	230	57	11,637	1,894	16.2
1924	272	225	47	11,382	2,083	18.3
1925	286	247	39	11,780	2,219	18.8
1926	285	250	35	12,201	2,523	20.7
1927	274	252	22	10,282	2,564	24.9
1928	276	263	13	10,523	2,764	26.2
1929	275	262	13	10,154	3,154	31.0
1930	265	255	10	10,115	3,505	34.6
1931	277	268	9	9,787	3,741	38.2
1932	267	262	5	9,621	3,755	39.0

The following figures show the causes which occasioned the sending for medical help :—

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
PREGNANCY :				
Threatened Abortion ..	22	19	17	58
Puffiness of face and hands ..	6	1	6	13
Fainting	5	3	8	16
Varicose Veins	6	13	28	47
Fits	3	4	4	11
Vaginal Discharge	4	7	22	33
Unsatisfactory condition and general health	52	73	134	259
Excessive Sickness	4	16	28	48
Loss of Blood	15	11	29	55
History of previous Still-births and Abortions ..	1	9	15	25
Œdema of Legs	6	20	15	41
Albuminuria	33	46	67	146
Sore of Genitals	—	—	1	1
Contracted Pelvis	13	17	54	84
	170	239	428	837
LABOUR :				
Premature Birth	—	3	—	3
Abnormal Presentation ..	54	32	101	187
Delayed or Difficult	135	272	383	790
Placenta Prævia	2	5	8	15
Hæmorrhage ante	18	14	44	76
Ditto post	10	21	37	68
Eclampsia	2	5	1	8
Prolapse of Cord	5	1	2	8
Lacerated Perinæum	125	126	315	566
Retained Placenta and Membranes	16	26	41	83
Unsatisfactory Condition ..	15	19	13	47
Inertia	24	51	—	75
Abortion	31	50	15	96
Purulent Discharge	1	—	4	5
Cough	3	1	1	5
Albuminuria	—	2	2	4
Contracted Pelvis	—	—	4	4
	441	628	971	2040

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
LYING-IN :				
High Temperature ..	34	18	52	104
Inflamed and painful leg ..	8	8	9	25
Convulsions	3	—	4	7
Unsatisfactory Condition ..	30	27	22	79
Offensive Lochia	4	1	6	11
Unusual Swelling of Breasts...	8	4	7	19
Abdominal Swelling and tenderness	2	3	4	9
	89	61	104	254
CHILD :				
Deformities	19	18	30	67
Convulsions	5	2	2	9
Inflamed and discharging eyes	48	39	107	194
Feebleness and prematurity ..	23	59	137	219
Unsatisfactory Condition ..	35	10	19	64
Rash	2	1	5	8
Pemphigus	2	—	1	3
Spina Bifida	5	5	6	16
Hare Lip and Cleft Palate ..	3	2	8	13
Club Foot	2	1	10	13
Serious Skin Eruption ..	—	3	1	4
Jaundice	—	5	6	11
Triplets	3	—	—	3
	147	145	332	624
Grand Total	847	1073	1835	3755

Midwives.

In the following Table, in which the County is divided into three districts, the numbers of Midwives practising, with the notifications received from them, together with the visits, interviews and inquiries of the Inspectors of Midwives, are shown :—

VISITS OF INSPECTORS, NOTIFICATIONS, INQUIRIES, ETC., DURING THE YEAR 1932.

District	No. of Midwives on List at 31/12/32	Trained	Untrained	Equip-ment		Notifications										Inquiries																			
				Full	Partial	Visits	Interviews	Medical Assistance						Deaths		Puerperal Fever	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding	Medical Assistance						Still Births	Deaths		Puerperal Fever	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding	
								Ante-natal	Labour	High Temp'ture	Lying In		Child								Ante-natal	Labour	High Temp'ture	Lying In		Child									
											Other	Inflamed Eyes	Other Conditions	Other	Inflamed Eyes									Other Conditions	Other	Inflamed Eyes		Other Conditions	Other						Inflamed Eyes	Other Conditions
North	84	82	2	82	2	374	320	170	441	34	55	48	98	77	4	42	11	15	45	6	37	...	...	34	6	64	20	...	4	1	9	12	45	3	...
Central	87	86	1	86	1	365	311	239	628	18	43	39	106	51	5	48	8	18	48	15	24	3	3	17	2	38	8	1	4	4	7	16	48	3	...
South	96	94	2	94	2	249	236	428	971	52	52	107	225	101	2	60	11	54	33	12	40	1	3	52	3	122	6	3	1	2	7	40	33	4	1
Totals	267	262	5	262	5	988	867	837	2040	104	150	194	430	229	11	150	30	87	126	33	101	4	6	103	11	224	34	4	9	7	23	68	126	10	1

On comparing these tables with similar ones in previous reports it is found that medical aid is called in during pregnancy to a much greater extent than formerly, and this would be expected owing to the attention now paid to ante-natal care both by the midwives under the rules of the Central Midwives Board and by the ante-natal work of the Maternity and Child Welfare Scheme.

In addition to the routine enquiries conducted by the Midwives Inspectors, four irregularities were specially investigated: as a result, two midwives received letters of caution and two were reported to the Central Midwives Board—one of these having her name removed from the Register, the other being censured and cautioned.

Since the Act came into operation, the names of 115 midwives have been removed from the Roll in consequence of action taken by the Local Supervising Authority.

During the year only one death of a practising midwife was reported.

In 1932, 9 District Nursing Associations who undertake Midwifery were subsidised to the extent of £416. At the end of the year there were 4 midwives in private practice receiving subsidies, and another midwife is provided with a telephone by the Local Supervising Authority in order that the area of her practice can be enlarged to include two somewhat isolated villages. On December 31st, 1932, there were 67 local Nursing Associations affiliated to the County Nursing Association, and 6 non-affiliated local Nursing Associations undertaking midwifery. The latter are Essington, Penn, Stafford, Stone and Tutbury Nursing Associations, and the Wolstanton Nursing Association have agreed to take emergency cases only.

Under Section 2 (1) of the Midwives and Maternity Homes Act, a total of £2 3s. 0d. was allowed by the County Council to a midwife as compensation for loss of practice on suspension after being in contact with a septic case, the midwife not being in default.

Under the Rules of the Central Midwives' Board, a midwife has to send for medical help if any abnormality occurs, and in the Midwives' Act, 1918, provision is made for the payment of the doctor called in in this way, the fees allowed being according to a scale issued by the Ministry of Health.

During the financial year ended March, 1933, 3,794 notifications of sending for medical help were received, and out of this number medical practitioners claimed their fees from the County Council in 2,255 cases, that is 59.4 per cent. of the possible claims.

The fees paid by the County Council are as follows :—

FEES PAID TO MEDICAL PRACTITIONERS UNDER MIDWIVES
ACT, 1918.

Finan- cial Year	No. of Notifications of sending for Medical Aid	No. of Claims received	Percentage of claims received to Notifications	Total amount paid to Doctors during year	Amounts recovered from Patients during year
			%	£ s. d.	£ s. d.
1925-26	2228	780	35	1100 15 0	366 9 9
1926-27	2641	1147	43	1702 19 3	408 4 6
1927-28	2556	1136	44	1598 5 9	503 1 0
1928-29	2874	1419	49	2053 0 6	599 12 3
1929-30	3319	1810	55	2352 17 6	723 6 9
1930-31	3506	1950	56	2631 2 0	616 15 3
1931-32	3775	2176	57	3223 12 6	602 3 9
1932-33	3794	2255	59	2574 17 9	627 3 9

The cost of collection is £200 per year. It will be observed that each year there has been an increase in the percentage of claims of fees from doctors in proportion to the number of requests for medical assistance.

No alteration has taken place in the income scale, which was drawn up for the guidance of the Collector when making application for the recovery of the fees, which is as follows :—

- (i.) Where the net weekly income of the family after deducting 3s. 6d. for each child under 14 years of age does not exceed 30s., the County Council shall not claim repayment of the medical practitioner's fee.
- (ii.) Where the net weekly income of the family, calculated as above, is over 30s., but does not exceed 45s., the County Council shall claim repayment of one-half of such fee.
- (iii.) Where the net weekly income of the family, calculated as above, exceeds 45s., the repayment of the whole of such fee shall be claimed.

Owing to the varying charges made for mileage by the medical practitioners, an arrangement has been made with the Local Branch of the British Medical Association for a uniform mileage fee of 1s 6d. per mile one way only after two miles from the doctor's residence.

The arrangements made in 1930 for the issue of maternity outfits at the various Clinics were continued, and in rural areas where there was no Clinic, Health Visitors were given charge of these. At one time two types were sold, costing 6s. 2d. and 3s., but as a result of experience it was found that an outfit costing 4s. 6d. was best suited to the purpose.

During the year 76 outfits were sold, and although this number is slightly greater than last year, comparatively little advantage appears to be taken of this scheme.

The Ministry require that periodical examinations be made of these outfits to ascertain if they are bacteriologically sterile: so far, the results of our tests have been satisfactory.

STILLBIRTHS.

It has already been noted that 582 stillbirths were registered during the year. Of these 229 were reported by midwives under their rules and on comparing this figure with those for the past 11 years I find that there is little variation in this number. The result of the investigations made by the Midwives Inspectors into the cause of these stillbirths is as follows :—

Albuminuria	1
Ante-Partum Hæmorrhage ..	1
Cord Prolapse	5
Cord round neck	9
Deformities	30
Difficult Labour	9
Fall and Shock	14
Ill-nourished	9
Maceration	104
Malpresentation	9
Placenta Prævia	2
Premature	26
Spina Bifida	3
Unsatisfactory Condition of Mother ..	5
Injury during Birth	2

County Bacteriological Laboratory.

Dr. J. Menton, the County Bacteriologist, reports that during 1932, 44,358 investigations were conducted, being an increase of 5,195 on the previous year. Of these, 29,618 were of a general bacteriological and pathological nature, 14,225 were for the diagnosis of and tests for cure for venereal diseases, and the remaining 515 were biochemical and pathological investigations conducted on behalf of the Staffordshire General Infirmary. The general

bacteriological work was for the most part from the administrative County, but 746 milk examinations were undertaken for the City of Stoke-on-Trent, 141 for the County Borough of Dudley, and 9 for the County Borough of Derby. Of the tests for venereal diseases, 5,229 were from patients resident in Staffordshire, 7,447 from patients resident in the City of Stoke-on-Trent, 646 from patients resident in the County Borough of Dudley, and 903 from patients resident in other areas outside the administrative County, with which special arrangements have been made. 7 bottles of gonococcal vaccine were also made.

The steady increase in this work from year to year can be attributed to several circumstances, the most important of which are:—the ever increasing tendency of medical practitioners to use the diagnostic facilities available; the advent of new tests; the additional demands made on the laboratory by the various Acts and Orders regulating the milk supply, and the consequent extensions of the work into the domains of veterinary and dairy bacteriology; the undertaking of work for the County Coroners; the growing interest of the various Sanitary Authorities in the bacteriological purity of water supplies; and the gradually increasing number of specimens received from outside Authorities. In addition, the arrangements for doing the bacteriological and pathological work for the Poor Law Institutions in the administrative County are now complete. The laboratory now also conducts the necessary biochemical and pathological investigations for the Staffordshire General Infirmary, Stafford, in addition to the Public Health bacteriology. This new work started on February 1st, 1932, and the investigations done for this Institution from this date to the end of the year were as follows:—

PATHOLOGICAL AND BIOCHEMICAL WORK CONDUCTED ON
BEHALF OF THE STAFFORDSHIRE GENERAL INFIRMARY,
STAFFORD.

<i>Fractional Test Meals</i>	205
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Urea (estimation of) :

Urine	35
Blood..	54
Cerebrospinal fluid	1

Glucose (estimation of) :

Urine	33
Blood..	48

Carried forward	376
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	Brought forward..	376
<i>Blood :</i>		
Films for differential count	..	11
Red cell fragility	3
Grouping .. ..	..	7
<i>Fæces :</i>		
Chemical examination .. ..	..	1
Estimation of fats .. ..	..	1
<i>Pathological Sections of human organs and tissues</i>		
		116
Total		<hr/> 515 <hr/>

The details of the general bacteriological and pathological investigations were as shown in Table II. :—

GENERAL BACTERIOLOGY AND PATHOLOGY.

	Water examinations	Milk examinations	Diphtheria	Tuberculosis	Cerebro-spinal fever	Ringworm	Malaria	Typhoid and Paratyphoid fever	Brucella Infections	Dysentery (all types)	Food poisoning	Pathological work including Medico-legal investigations	Maternity outfts	Other examinations	Total
Quarter 1st Jan., 1932 to 31st March, 1932	67	1929	2993	1013	189	69	—	101	22	123	191	64	—	491	7252
Quarter 1st April, 1932 to 30th June, 1932	51	2038	3065	926	32	92	—	158	32	179	276	116	—	421	7386
Quarter 1st July, 1932 to 30 Sept., 1932	96	2081	1869	802	5	79	1	456	101	536	1137	34	—	321	7518
Quarter 1st Oct., 1932 to 31st Dec., 1932	80	2007	2719	879	1	58	—	276	53	295	532	6	106	450	7462
Total	294	8055	10646	3620	227	298	1	991	208	1133	2136	220	106	1683	29618

The 3,620 examinations under "Tuberculosis" included 2,918 sputa ; 42 pus ; 47 cerebro-spinal fluids ; 40 other fluids ; 379 urines ; 13 fæces ; 165 biological tests ; and 16 others.

The 208 investigations under the heading of "Brucella Infections" consisted of two examinations of blood specimens from cattle and 206 specimens from human beings. This organism causes contagious abortion in cattle and a type of undulant fever in human beings. One blood from a beast was positive and nine specimens from human beings gave agglutination reactions varying from 1 in 50 to 1 in 2,500.

The majority of the serological tests for food-poisoning were done for exclusion purposes and fortunately proved negative, but there were four cases of mild Salmonella infection in various parts of the County.

In connection with the dysentery investigations, there was one case of infection due to Flexner's bacillus, which occurred in an Institution, and three illnesses due to Sonne's bacillus, one of which occurred in an Institution and two occurred in their homes.

An outstanding feature in connection with the Medico-legal work was a case of strychnine poisoning. This death was the subject of a Coroner's enquiry and a pathological investigation was conducted in conjunction with the chemical examination by the County Analyst.

The 1,683 "other examinations" included 132 bacteriological and cytological examinations of various body fluids and exudates ; 115 blood cultures ; 11 specimens for anthrax ; 28 examinations for Vincent's Angina ; and various other miscellaneous investigations.

In connection with the milk examinations, the reasons for these and the sources of the samples are shown in the accompanying tables. It will be noticed that 42 samples of "Grade A" milk gave positive biological reactions for tuberculosis and that one "Grade A, Tuberculin Tested" and two Pasteurised samples gave similar results.

	Bacteriological Count and Coliform Content			Biological Tests.			Grand Total.	
	Satisfactory	Unsatisfactory	Total	Negative	Positive	Total		
For "Grade A" Standard and "Grade A" Licence	First Quarter	277	20	297	84	6	90	387
	Second "	262	24	286	108	14	122	408
	Third "	260	39	299	92	15	107	406
	Fourth "	287	28	315	114	7	121	436
For "Grade A.T.T." Standard and "Grade A.T.T." Licence.	First	42	—	42	7	—	7	49
	Second	42	5	47	14	—	14	61
	Third	40	13	53	8	1	9	62
	Fourth	53	6	59	17	—	17	76
For "Certified" Standard.	First	10	2	12	4	—	4	16
	Second	9	—	9	4	—	4	13
	Third	10	4	14	2	—	2	16
	Fourth	7	1	8	2	—	2	10
For "Grade A. Pasteurised" Standard.	First	2	2	4	3	—	3	7
	Second	3	2	5	3	—	3	8
	Third	3	1	4	3	—	3	7
	Fourth	3	—	3	4	—	4	7
For "Pasteurised" Standard.	First	15	2	17	10	—	10	27
	Second	15	1	16	12	2	14	30
	Third	21	11	32	24	—	24	56
	Fourth	26	3	29	27	—	27	56
Submitted by farmers, retailers and others for their own information.	First	10	3	13	8	—	8	21
	Second	17	5	22	6	2	8	30
	Third	78	35	113	4	—	4	117
	Fourth	15	4	19	6	—	6	25
Milk and Dairies (Consolidation) Act, 1915.	First	260	101	361	622	84	706	1067
	Second	295	204	499	603	96	699	1198
	Third	262	303	565	650	112	762	1327
	Fourth	404	133	537	685	117	802	1339
Tuberculosis Order, 1925.	First	—	—	—	—	1	1	1
	Second	—	—	—	1	—	1	1
	Third	—	—	—	—	—	—	—
	Fourth	—	—	—	1	1	2	2
Special Investigation (Sheffield complaint).	First	126	63	189	35	12	47	236
	Second	—	—	—	203	43	246	246
	Third	—	—	—	37	5	42	42
	Fourth	—	—	—	—	—	—	—
	2854	1015	3869	3403	518	3921	7790	

	Bacteriological Count and Coliform Content	Biological Test	Direct Film for Acid-Fast Bacilli.
<i>From the Official Sampler to the County :</i>			
(a) Special Designations Order, 1923	1354	540	—
(b) Milk and Dairies (Consolidation) Act, 1915	1644	1597	—
<i>From Veterinary Surgeons :</i>			
(a) Tuberculosis Order, 1925	—	3	—
(b) Milk and Dairies (Consolidation) Act, 1915	—	1268	98
<i>From Staffordshire Farm Institute, Producers and Retailers :</i>			
(a) For "Grade A." Licence	10	—	—
(b) Experimental for "Grade A."	2	—	—
(c) For "Grade A." Standard	28	—	—
(d) For "Certified" Licence and Standard ..	3	—	—
(e) For "Grade A.T.T." Licence and Standard	4	1	—
(f) For "Pasteurised" Standard	9	—	—
(g) For Information	195	26	—
<i>From Local Authorities in the Administrative County (other than those from Official Sampler) :</i>			
(a) Special Designations Order, 1923	23	10	—
(b) Milk and Dairies (Consolidation) Act, 1915	173	149	—
<i>From Authorities outside the Administrative County :</i>			
(a) Special Designations Order, 1923	99	38	—
(b) Milk and Dairies (Consolidation) Act, 1915	325	383	51
(c) For information	—	—	—
	3869	4015	149

In the administrative County, close co-operation continues to be maintained with the private Medical Practitioners, the Medical Officers of Health and Sanitary Inspectors, the Veterinary Inspectors, the School Medical Service and the Staffordshire Farm Institute.

The laboratory is also in constant touch with the Medical Officers of Health, Venereal Diseases Officers, and Sanitary Inspectors of the City of Stoke-on-Trent and the County Borough of Dudley.

The Orthopaedic Hospital, Hartshill, Stoke-on-Trent, has applied to have work done at the laboratory.

Standon Hall Orthopædic Hospital also makes full use of the bacteriological and pathological facilities at its disposal.

The links between animal and human infections concerned mainly those of bovine tuberculosis and undulant fever, the latter disease being a convincing example of the necessity of laboratory facilities for securing accurate diagnosis.

The outstanding research during the year dealt with the different "types" of *C. diphtheriae* with special reference to the value of antitoxin in the various "types."

The details of the Venereal Diseases tests are shown in the following table :—

EXAMINATIONS OF PATHOLOGICAL SPECIMENS CONDUCTED
UNDER THE VENEREAL DISEASES SCHEME DURING THE
YEAR 1932.

	For Detection of		For Wassermann Reaction	Sigma & Kahn Reactions	Other Examinations	Total
	Spirochætes	Gonococci				
1st Quarter	1	203	1325	1121	123	2773
2nd Quarter	2	188	1446	1148	122	2906
3rd Quarter	1	233	1774	1619	229	3856
4th Quarter	2	336	2040	1979	333	4690
Total ..	6	960	6585	5867	807	14225

The 807 "other examinations" included under the Venereal Diseases Scheme were :—114 cerebrospinal fluids for cell count, globulin and colloidal gold test ; 686 complement fixation tests for gonorrhœa ; the examination of five urines for gonococci ; and the making of two cultures for gonococci.

Chemical Laboratory

Mr. E. V. Jones, the County Analyst, reports that during 1932 by far the largest number of samples analysed is under the Food and Drugs (Adulteration) Act, 1928. Under this Act he has received the following samples, as tabulated :—

SAMPLES.	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Ale, Mild	2	—	2	—	—	—
Almonds, Ground	3	2	1	—	—	—
Apricots, Dried	1	—	1	—	—	—
Arrowroot	5	5	—	—	—	—
Baking Powder	3	1	2	—	—	—
Barley, Pearl	8	3	5	—	—	—
Beef, Corned	1	—	1	—	—	—
Beeswax	1	—	1	—	—	—
Bicarbonate of Soda	8	4	4	—	—	—
Bismuth and Magnesia	1	—	1	—	—	—
Borax, Purified	1	—	1	—	—	—
Brawn	5	—	5	—	—	—
Butter	49	33	16	—	—	—
Cakeoma	1	—	1	—	—	—
Camphor, Flowers of	1	—	1	—	—	—
Cayenne	1	1	—	—	—	—
Cheese	10	1	9	—	—	—
Cheese, Gorgonzola	5	—	5	—	—	—
„ Gruyere	1	—	1	—	—	—
Chlorate of Potash	1	—	1	—	—	—
Chocolate	1	—	1	—	—	—
„ Milk	1	—	1	—	—	—
Chutney	1	—	1	—	—	—
Cinnamon, Ground	3	2	1	—	—	—
Cocoa	2	1	1	—	—	—
„ Malted Milk with Eggs	1	—	1	—	—	—
Coconut, Desiccated	2	2	—	—	—	—
Coffee	6	1	5	—	—	—
„ and Chicory	1	1	—	—	—	—
Cornflour	5	1	4	—	—	—
„ British	1	—	1	—	—	—
Cream	13	—	13	—	—	—
„ of Tartar	1	—	1	—	—	—
Currants	1	1	—	—	—	—
Custard Powder	8	—	8	—	—	—
Dripping	1	1	—	—	—	—
Egg Substitute Powder	2	1	1	—	—	—

SAMPLES.	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Epsom Salts	2	1	1	—	—	—
Flour	2	1	1	—	—	—
„ Pea	1	1	—	—	—	—
„ Raisley	1	—	1	—	—	—
„ Self-raising	19	9	10	—	—	—
„ „ Egg	2	1	1	—	—	—
Fruit, Mixed	1	—	1	—	—	—
Ginger	5	3	2	—	—	—
„ Ground	14	13	1	—	—	—
Glauber's Salt	6	2	4	—	—	—
Glycerin	4	—	4	—	—	—
Golden Syrup	3	—	3	—	—	—
Gregory's Powder	1	1	—	—	—	—
Groats, Patent	1	1	—	—	—	—
Honey	5	—	5	—	—	—
Instant Postum	1	—	1	—	—	—
Iodine, Tincture of	1	—	1	—	—	—
Jam, Apple and Strawberry	1	—	1	—	—	—
„ Apricot	2	1	1	1	—	1
„ Black Currant	1	—	1	—	—	—
„ Damson	1	—	1	—	—	—
„ Raspberry	4	—	4	—	—	—
„ Strawberry	6	—	6	—	—	—
Jelly, Table	1	—	1	—	—	—
Lard	34	26	8	—	—	—
Lemonade Powder	1	—	1	—	—	—
Lemon Cheese	4	—	4	—	—	—
Magnesia, Carbonate of	2	—	2	—	—	—
Margarine	7	3	4	—	—	—
Milk	1394	1094	300	127	99	28
„ “ Appeal to Cow ”	64	64	—	14	14	—
„ “ Grade A ”	40	7	33	2	1	1
„ “ Grade “ A ” (T.T.)	11	2	9	1	—	1
„ Pasteurised	24	21	3	—	—	—
„ Separated	2	2	—	—	—	—
„ Skimmed	1	1	—	—	—	—
„ Sterilized	12	6	6	1	—	1

SAMPLES.	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Milk Condensed Full	1	—	1	—	—	—
Cream Sweetened						
„ Condensed Full	4	—	4	—	—	—
Cream Unsweetened						
„ Machine Skimmed Sweetened ..	6	—	6	—	—	—
Mincemeat	1	—	1	—	—	—
Mint Sauce	1	—	1	—	—	—
Mustard	2	—	2	—	—	—
Nutmegs	1	—	1	—	—	—
Oatmeal	5	4	1	—	—	—
Oats	1	—	1	—	—	—
Oil, Camphorated	7	—	7	—	—	—
„ Castor	2	—	2	—	—	—
„ Cod Liver	3	—	3	—	—	—
„ Eucalyptus	3	—	3	—	—	—
„ Olive	4	—	4	—	—	—
Ointment, Boracic	2	—	2	—	—	—
„ Zinc	1	—	1	—	—	—
Paprika	1	—	1	—	—	—
Paraffin, Medicinal	1	—	1	—	—	—
Paregoric Elixir	3	—	3	—	—	—
Parsley (prepared)	1	—	1	—	—	—
Paste, Bloater	2	—	2	—	—	—
„ Crab	2	—	2	—	—	—
„ Lobster	1	—	1	—	—	—
„ Salmon and Shrimp	2	—	2	—	—	—
„ Tongue	1	—	1	—	—	—
„ Tongue and Turkey	2	—	2	—	—	—
Peas	2	—	2	—	—	—
„ (tinned)	7	—	7	—	—	—
Pepper	28	19	9	—	—	—
„ Black	1	1	—	—	—	—
Pickles	1	—	1	—	—	—
Pig Pudding	1	—	1	—	—	—
Rice	11	7	4	—	—	—
„ Ground	8	7	1	—	—	—
Rochelle Salt	2	—	2	—	—	—

SAMPLES.	Number Examined.			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Sardines (in olive oil)	1	—	1	—	—	—
Sausage	10	1	9	2	1	1
„ preserved	1	—	1	—	—	—
Semolina	4	4	—	1	1	—
“ Shortex ”	1	—	1	—	—	—
Sild (in olive oil)	1	—	1	—	—	—
„ (in tomato sauce)	1	—	1	—	—	—
Spirits, Rum	3	1	2	1	1	—
„ Whiskey	9	1	8	2	1	1
Strawberries (tinned)	1	—	1	—	—	—
Suet, Shredded Beef	5	1	4	—	—	—
Sugar	3	1	2	—	—	—
„ Demerara	3	3	—	—	—	—
„ Icing	1	—	1	—	—	—
Sulphur, Flowers of	8	4	4	—	—	—
„ Milk of	1	1	—	—	—	—
Sultanas	2	—	2	—	—	—
Sweets	3	1	2	—	—	—
Tablets, Ammoniated Quinine ..	1	—	1	—	—	—
„ Aspirin	1	—	1	—	—	—
„ Bismuthated Magnesia ..	1	—	1	—	—	—
Tapioca	5	—	5	—	—	—
Tartaric Acid	3	2	1	—	—	—
Tea	15	7	8	—	—	—
Thyme (prepared)	1	—	1	—	—	—
Treacle, Black	1	—	1	—	—	—
Vinegar, Malt	2	—	2	—	—	—
Zinc Oxide	1	—	1	—	—	—
	2049	1386	663	152	118	34

FERTILIZERS AND FEEDING STUFFS ACT, 1926.

			<i>Total.</i>	<i>Satisfactory.</i>	<i>Unsatisfactory.</i>
Barley Meal	..	..	2	1	1
Indian Meal	..	..	3	3	—
Laying Meal	..	..	1	—	1
Linseed Cake Meal	..	..	1	1	—
Sharps	..	..	2	2	—
White Fish Meal	..	..	1	1	—
			—	—	—
			10	8	2
			—	—	—

One of the two samples of Barley Meal contained 20% of Oat Shudes, and was, therefore, unsatisfactory. The other sample was of satisfactory quality.

The sample of Laying Meal was unsatisfactory, it was composed chiefly of Wheat Offals. No guarantee as to oil, albuminoids (protein) and fibre was given, which is an offence under the Act.

The sample of White Fish Meal was of satisfactory quality, the percentage of albuminoids (protein) being above the guarantee, the percentage of oil and salt below the guarantee and the percentage of phosphoric acid (P2O5) within the "Limits of Variation."

The three samples of Indian Meal, the one sample of Linseed Cake Meal and the two samples of Sharps were of satisfactory quality, though in one case no guarantee as to fibre was given.

In addition to the samples submitted under the above Acts, I have received 190 Drinking Waters, of which 88 were of satisfactory quality chemically, 12 were of doubtful quality, 56 were sewage polluted, 25 were organically impure, 5 were excessively hard, from 55° to 117° (Clarke), two contained Lead, one Zinc and one Iron.

93 River Waters were submitted, 31 for full, and 62 for partial analysis. Three Canal and one Pond Water were fully analysed.

Of 52 Effluents submitted, 14 were fully and 38 partially analysed.

Seven Police samples were examined for poisons, and one sample which had fallen from a lorry was submitted by the Police for identification; it proved to be Dried Milk.

Five Coroner samples were submitted, each of which was found to contain Strychnine.

Two samples of Urine were examined for Arsenic. One Cattle Food, one Milk and one Human Milk were also fully analysed. One sample of Icing from cake was examined for Arsenic and Lead with negative results.

Hospitals

In the Annual Report for 1930 full details were given of the County's hospital services.

In June, 1932, the Standon Hall Hospital was opened by the County Council. This institution provides for the treatment of women and children suffering from orthopædic conditions, 95 of the 120 beds being allotted to tuberculous cases.

This hospital provides a long-felt want and adds a further weapon to the public health armamentarium in the fight against crippling conditions of childhood. At one time it was a common thing to see many adult cripples walking the streets—cases which had been neglected in childhood—but this is comparatively rare nowadays. Children receive careful pre-school supervision at the Child Welfare Centres as well as the usual routine examinations at school, and any case of a suspicious nature is referred to a consultant, either tuberculous or orthopædic. In this way, treatment is commenced as soon as possible after the onset of the disease, with the result that supervision is spread over a shorter time than would have been the case if the child had been neglected.

Maternity and Nursing Homes

At the end of the year the number of premises registered under the Nursing Homes Registration Act, 1927, was 24 ; three exemptions from registration previously allowed were continued. No applications for registration were received in 1932. The 24 homes registered, with the exception of 6, are for one or two beds only. The County Council have not delegated any of their powers under the Nursing Homes Registration Act, 1927, to District Councils nor have any applications been received for such delegation.

No Maternity Homes have been established by the County Council as yet, but they have arrangements with the Mrs. Legge Memorial Home, Wolverhampton, where prospective unmarried mothers can be sent for their confinement and remain there for six months. The County Council contribute 40/- per patient per week for six weeks, the cost of the remainder of the period being defrayed from philanthropic sources. In 1932 four cases were dealt with at this Home.

In addition, arrangements have been made for midwifery cases to be sent from the Health Visiting Area to the following Maternity Homes :—

Ashbourne (Derbyshire).

Newport (Salop).

Bath Road Maternity Home, Wolverhampton.

Tipton.

North Staffordshire Royal Infirmary.

Crewe.

Longton Cottage Hospital.

Corbett Hospital, Stourbridge.

The cases so sent are limited to those who live in unsatisfactory home conditions or have some complication in connection with their pregnancy which makes it unsafe for them to remain at home. During the year, ten patients who complied with these conditions were sent by the County Council.

Besides the Maternity Homes already mentioned, cases are received at the Wordsley Public Assistance Institution in a private ward of 8 beds for patients who can pay either the whole cost or a portion of the cost of treatment. At the Sedgley Institution there is a special block known as the Rosemary Ednam Maternity Home, built by the late Board of Guardians, in which there are 9 beds for paying patients under similar conditions to those that exist at the Wordsley Institution.

Maternal Mortality

In the accompanying table the maternal mortality rate for the administrative County showing the deaths per thousand live births in the last 10 years is given.

It will be observed that the maternal mortality rate for 1932 is rather more than that for the previous year (4·0 compared with 3·1). It is disappointing to record that this difference is accounted for by an increase in the deaths from puerperal sepsis, but the mean death rate for the last ten years is practically the same, and is lower than that in many other areas. We cannot, however, congratulate ourselves on this, for the death rate gives no indication of the many cases that exist of injury, often of a permanent nature, from what should be a physiological process.

Year.	Live Births.	DEATHS FROM		Maternal Mortality per 1,000 live births.
		Puerperal Sepsis.	Other Diseases and Accidents of Parturition.	
1923	15,342	20	40	3.9
1924	15,546	15	28	2.7
1925	15,241	15	32	3.1
1926	14,535	19	45	4.4
1927	13,856	25	27	3.7
1928	13,742	21	29	3.6
1929	13,125	17	42	4.5
1930	13,243	22	23	3.4
1931	12,752	11	29	3.1
1932	12,335	21	29	4.0
Mean for 10 years	13,972	19	32	3.6

It is the duty of a midwife to notify all deaths that occur in her practice whether as a midwife or as a maternity nurse. This rule only relates to the period in which she is actually in attendance and consequently if the patient is removed to Hospital, or not being attended at the time of death by the midwife, the death is not reported by her. During the year 11 deaths were so reported out of a total of 50 maternal deaths registered.

The causes of death were as follows :—

Adherent Placenta and Post-Partum Hæmorrhage ..	1
Concealed ante-Partum Hæmorrhage	1
Eclampsia	1
Fatty Degeneration	1
Pernicious Anæmia	1
Pneumonia	1
Puerperal Cerebral Hæmorrhage	1
Pulmonary Embolism	2
Tuberculosis	2

In previous reports full details were given of the scheme approved by the County Council for providing the services of

obstetric consultants in such cases where the family doctor desires his assistance at any time during pregnancy, during labour, or during the puerperium. Under the same scheme ante-natal clinics have been established in connection with various Infant Welfare Centres and midwives are encouraged to take their patients there for examination by the Medical Officer. At these Centres no treatment is given but if such is found necessary the midwives are advised to send the patients to their own doctors.

I am glad to note that more advantage is now being taken of that part of the scheme which allows the family doctor to call in a Consultant when necessary, this provision being made use of on 25 occasions, as against 13 for 1931.

(a) INVESTIGATION OF MATERNAL DEATHS.

The same arrangements as for 1931 still hold good for investigating maternal deaths. This work is carried out by the Medical Officer of Health of the district concerned or by one of the Assistant Medical Officers of the County Council.

Reports on each maternal death are forwarded to the Ministry of Health when completed, for the information of the special committee set up by that department to deal with this matter.

(b) WORK UNDER THE PUERPERAL FEVER AND PUERPERAL PYREXIA REGULATIONS.

In previous Annual Reports the scheme adopted by the County Council for carrying out the duties imposed by these Regulations was set forth. The following is the number of notifications during 1932 :—

PUERPERAL PYREXIA NOTIFICATIONS, 1932.

	<i>In Health</i>		<i>Not in Health</i>		
	<i>Visiting Area.</i>		<i>Visiting Area.</i>		<i>Total.</i>
Urban Districts	..	19	..	47	.. 66
Rural Districts	..	17	..	4	.. 21
					—
					87
					—

Puerperal Pyrexia is defined as any febrile condition occurring in women within 21 days after childbirth or miscarriage, in which a temperature of 100·4 or more has been sustained during a period of 24 hours or has recurred during that period. Cases of puerperal fever are included in this definition, and as the latter condition can still be notified the following are the notifications :—

PUERPERAL FEVER NOTIFICATIONS, 1932.

	<i>In Health</i>		<i>Not in Health</i>		<i>Total.</i>
	<i>Visiting Area.</i>		<i>Visiting Area.</i>		
Urban Districts	..	4	..	13	.. 17
Rural Districts	..	9	..	4	.. 13
					—
					30
					—

During 1932 the case rate per thousand of the population for the County was :—

(a) For puerperal pyrexia	0·12
For England and Wales	0·14

When calculated on the basis per thousand total births (live and stillbirths) the rate for Staffordshire is 6·7 and for England and Wales 8·5.

(b) For puerperal fever	0·04
For England and Wales	0·05

When calculated on the basis per thousand total births (live and stillbirths) the rate for Staffordshire is 2·3 and for England and Wales 3·3.

The midwives under their rules have also to notify to the Local Supervising Authority any rises of temperature in their practice and these, which number 104, were specially investigated by the Midwives' Inspectors, who reported that the conditions to which they were due were as follows :—

Cystitis	2
Emotional	2
Engorged Breasts	2
Labial abscess	1
Mammary abscess	2
Mastitis	15
Nephritis	2
Offensive Lochia	1
Pelvic abscess	2
Phlebitis	1
Phlegmasia alba dolens	1
Puerperal insanity	1
Pyelitis	2
Retained Placenta and Membranes	7
Salpingitis	1
Sapræmia	10
Septicæmia	2

Septic absorption	..	..	..	..	1
Septic cervix	..	..	..	..	1
Shock	..	..	..	..	1
Thrombosis	..	..	..	..	2
Appendicitis	..	..	..	..	2
Bronchitis	..	..	..	..	2
Constipation	..	..	..	..	1
Enteritis	..	..	..	..	1
Food Poisoning	..	..	..	..	1
General condition	..	..	..	..	2
Headache (severe)	..	..	..	..	1
Influenza	..	..	..	..	11
Nasal infection	..	..	..	..	1
Pleurisy	..	..	..	..	1
Pneumonia	..	..	..	..	6
Previous illness and disease	..	..	..	..	11
Septic hand	..	..	..	..	1
Tonsilitis	..	..	..	..	2
Tuberculosis	..	..	..	..	2

It will be observed that in several instances the rise of temperature could not be definitely associated with the puerperal state, but although these special investigations have taken up much time of the Midwives' Inspectors there is little doubt that they were worth while and have resulted in no case of septic condition of the genital tract being overlooked. In each case the midwife, according to her rules, had to call in a medical practitioner, so that appropriate treatment could be given. Such cases as comply with the definition given would then be notified by the medical practitioner under the Puerperal Pyrexia Regulations, and during the year under the Health Visiting Committee's Scheme a second opinion was obtained in 5 cases, and 16 cases sent to hospitals. In 7 instances the patients remained at home and special nursing was provided.

In addition to the cases referred to above, it was ascertained that 18 patients from the Health Visiting area were sent to hospital and 3 were seen by Consultants through other agencies.

Infantile Mortality.

The infant mortality rate for 1932 was 69 per 1,000 live births as against 70 last year. The rate in urban districts was 76 compared with 74, and in the rural districts 54 as against 60 in the previous year. In England and Wales in 1932 the infant mortality rate was 65 compared with 66 last year. It has been often noted in examining the causes of death of children under one year that

in recent years there has been no reduction in the deaths from prematurity, malnutrition, and such like causes, and this year I find is no exception, the numbers remaining substantially the same as in former years.

Under the rules of the Central Midwives' Board, deaths of infants within the first 10 days of life are notified by midwives and 150 deaths were so reported, the causes of death being as follows :—

Asphyxiated	7
Congenital Heart	15
Convulsions	13
Deformities	6
Feebleness and Prematurity.. .. .	95
Inattention at birth	6
Meningitis	1
Over-laying	2
Septic jaundice	5

CLINICS AND TREATMENT CENTRES.

The number of Clinics and Treatment Centres were set out in detail in the 1930 Report. Since 1931 the only change has been that, as a result of the extension of the borough under the Tamworth Corporation Act, 1931, the Bolehall Clinic has been taken over by the Health Visiting Committee of the Staffordshire County Council, and infant visiting for that part of the parish of Glascote that remains in Warwickshire is also undertaken by Staffordshire, whilst ante-natal cases in the same parish attend the Clinic at Tamworth.

The County Council have now established 33 Combined School Clinics and Infant Welfare Centres and 9 Infant Welfare Centres. These Centres serve the more populous portions of the County Health Visiting Area and, with the exception of the very smallest Centres, special arrangements have been made for ante-natal work. In addition to these Centres, a voluntary Centre at Tutbury has been in operation, apart from the County Council scheme.

WORK OF THE CENTRES AND OF THE HEALTH VISITING SCHEME.

As already mentioned, the County Health Visiting Area serves a population of 308,360, which at the end of the year included 12 urban and 13 rural districts as well as two parishes forming part of one of the rural districts in Shropshire.

In the table at the end of the report will be found details of the work at the Centres.

In 1932, 744 attendances were made by expectant mothers compared with 771 in the previous year.

26,152 children under one year as against 23,921 in 1931 and 28,716 as against 26,879 children between one and five years attended the Centres.

It is disappointing to note that the attendances of expectant mothers are less than for last year—744 as against 771—but many cases may have been referred by the midwife direct to the practitioner. There has been an increase in attendances of children under one year and between one and five years of age at the Centres. The increase in the latter is especially gratifying because during recent years great efforts have been made to induce the mothers to bring children during the toddler age for examination and it has been found that here, as in other parts of the country, mothers, while fully appreciating the necessity of bringing their children to the Centres during the first year of life, often find it difficult to understand why they should attend during the next few years before they start attending school, especially those who are apparently in good health.

The work of the Centres is chiefly educational ; cases requiring treatment being sent to their family doctor, except crippling conditions and those who must be seen by an ophthalmic surgeon. 123 new cases as against 135 last year were sent to orthopædic hospitals for out-patient treatment in the first instance, 7 being admitted as in-patients. In addition 10 more patients were recommended for in-patient treatment, making a total of 17 patients admitted to hospital.

The following is a list of orthopædic cases referred for treatment :—

Arthritis	..	..	..	..	..	4
Birth palsy	..	..	..	..	..	2
Bow Legs	..	..	..	..	..	24
Cerebral diplegia	..	..	..	..	..	2
Club hand	..	..	..	..	..	1
Club foot	..	..	..	..	..	14
Congenital deformities	..	..	..	..	..	1
Deformities due to Poliomyelitis	..	..	..	..	..	1
Flat foot	..	..	..	..	..	6
Hemiplegia	..	..	..	..	..	3
Knock knee	..	..	..	..	..	20
Knock knee and flat foot	..	..	..	..	..	19
Old fracture—malunion	..	..	..	..	..	1
Rickets ..	..	..	..	..	..	18
Spasmodic flexion of thumbs and fingers	..	..	..	..	..	1

Spina bifida	..	..	..	..	1
Thumb abducted	..	..	..	..	1
Torticollis	..	..	..	..	2
? Diagnosis	..	..	..	..	1

In one further case no treatment was advised.

The eye cases in children under 5 seen by the County Ophthalmic Surgeon included 71 new cases, for whom glasses were necessary in 47 instances. 187 other cases seen previously were re-examined. In 14 cases the Committee provided the glasses prescribed, and in one instance half the cost was contributed.

At the end of the year there were 39 whole-time Health Visitors compared with 38 the previous year, an additional Health Visitor having been appointed consequent upon the extension of the Borough of Tamworth. These Health Visitors serve a population of approximately 232,668, two of them being Lecturers on Mothercraft. Under the scheme approved by the Committee three lecturers were to be appointed, but it was not found possible to fill one of the vacancies. There are 46 part-time Health Visitors serving a population of approximately 75,692, mainly in the Rural Districts. These are District Nurses appointed by District Nursing Associations who, before they took up their duties, received special instruction at Sedgley under the direction of the whole-time Health Visitors there. On reference to the table at the end of the Report the districts and populations served by both whole-time and part-time Health Visitors are set forth.

Until the end of 1930 lectures were given to Health Visitors at Stafford during the winter months, but owing to financial stringency these have been discontinued. It is hoped that it will be possible to start them again in the near future, for they have proved of considerable value to the staff, being the means of stimulating interest and arousing enthusiasm in their work, particularly in the part-time staff who otherwise have little opportunity of conferring with others about the numerous difficulties they meet in the districts.

The visits paid by the Health Visitors during the year were as follows :—

To expectant mothers.

(1) First visits	..	..	..	1,506
(2) Total visits	..	..	..	4,662

To infants under 1 year.

(1) First visits	..	..	..	5,026
(2) Total visits	..	..	..	47,785

To children, 1—5 years.

Total visits	88,913
--------------	----	----	----	--------

Lectures on mothercraft which began two years ago have been continued at the Infant Welfare Centres, but owing to the difficulty in completing the number of lecturers authorised, it has not been possible to have lectures at all the Centres as yet.

During the year 419 lectures were given at 22 Centres in various parts of the Health Visiting Area, at which there were 8,432 attendances of mothers.

The County Council have not established any Orthopædic Clinics, but have arrangements with voluntary bodies who have established Orthopædic Clinics, at Leek, Stourbridge, Hartshill, Stafford, Lichfield, Tamworth, Walsall, and Dudley, where cases are received on payment.

The Tuberculosis Dispensaries in the County are under the control of the Joint Committee for Tuberculosis. There are twelve dispensaries of which four are main dispensaries and have been built specially for the purpose.

Children Act, 1908

In the Health Visiting Area the Health Visiting Inspectors, the whole-time Health Visitors, and the part-time Nurses have been appointed as Infant Life Protection Visitors. The work of supervision and visitation of the children who are boarded out under Part I. of the above Act, is carried out by these Visitors. A preliminary examination is carried out by the Health Visitor when an application is received for registration of the foster-home, and monthly visits are subsequently paid by her. Regard is had to the general health and well-being of the children, and the suitability of the premises for their reception. The County Council also have power to limit the number of children under nine years in such a home.

The work carried out under this scheme during the year is shown in the following table :—

Number of children on Register at the end of December, 1932	62
Number of reports on visits to children received during the year 1932	519
Number of new cases during 1932, for which pre- liminary reports were sent in by Health Visitors	13
Number of foster parents on Register at end of 1932	58

Venereal Diseases

Under the County Council scheme for the treatment of Venereal Diseases agreements have been made with the North Staffordshire Royal Infirmary, Stoke-on-Trent; the Staffordshire General Infirmary, Stafford; the Royal Hospital, Wolverhampton; the

General Hospital, Walsall; the Guest Hospital, Dudley; and the Corbett Hospital, Amblecote, for the establishment of special clinics, and arrangements have been made at the County Bacteriological Laboratory for the examination of specimens received from these treatment centres (excluding Wolverhampton and Walsall) and from Stoke Municipal treatment centre, and also from medical practitioners in the administrative County and the City of Stoke-on-Trent.

On July 1st, 1932, the clinic at Lichfield was removed to the Staffordshire General Infirmary, Stafford, and is now in charge of a full-time Venereal Diseases Officer, Dr. A. D. Frazer, who is also responsible for the clinic at the North Staffordshire Royal Infirmary, Stoke-on-Trent. The intermediate treatment has been reorganised at these centres and is being utilised to the full extent.

The following table shows the number of Staffordshire cases treated during the year, including cases from the County who attended clinics outside the area:—

STAFFORDSHIRE CASES TREATED FOR VENEREAL DISEASES
DURING THE YEAR 1932.

CLINIC.	Syphilis	Soft chancre.	Gonorrhoea.	Non-Venereal.	Total.	Attendances.
Birmingham General Hospital ..	10	—	15	33	58	1944
Burton-on-Trent General Infirmary ..	—	—	4	3	7	75
Derby Royal Infirmary ..	8	—	2	5	15	289
Dudley Guest Hospital ..	25	—	37	31	93	4751
Leeds General Infirmary ..	—	—	1	—	1	2
Lichfield	4	—	7	—	11	480
Salford	2	—	1	1	4	20
Stafford (Staffs. General Infirmary) ..	18	—	26	28	72	1212
Stoke-on-Trent (N.S.R.I.) ..	52	—	59	33	144	13174
Stoke-on-Trent (Shelton) ..	30	—	55	38	123	4034
Stourbridge Corbett Hospital ..	5	—	12	9	26	2290
Walsall	18	—	15	23	56	1950
Wolverhampton Royal Hospital ..	47	1	84	106	238	6429
TOTALS	219	1	318	310	848	36650

In comparing the total number of cases treated at the clinics with those for last year, it has been found that 848 patients were treated as against 820. It is gratifying that the attendances in proportion to the new cases still maintain a high ratio. These figures show that the patients are anxious to get the best out of the treatment.

At the end of 1932 there were 38 medical practitioners authorised to receive free supplies of Salvarsan or its substitutes for the treatment of Staffordshire cases in their practices ; 12 doctors on the list availed themselves of this provision during the year.

Water Supplies

In their Annual Reports the District Medical Officers of Health give an account of improvements in the water supplies in their areas which have taken place during the year, and of unsatisfactory conditions now existing for which remedial measures are being undertaken or will have to be considered in the near future. The following information is extracted from this source :—

BIDDULPH U.D.—“ The Council has decided to put a new reservoir at Biddulph Park, to carry out certain extensions to mains and to provide an additional engine to the plant at the Elmhurst Pumping Station, providing that the necessary sanction to loans for these purposes can be obtained.”

CANNOCK U.D.—The Council have come to an arrangement with the South Staffordshire Waterworks Company for the extension of their mains at Leacroft and water will shortly be available for further houses there.

“ During the year 810 yards of new water mains were extended at Cannock Wood to allow 11 premises to be connected.”

KIDSGROVE U.D.—In the Newchapel Ward the water supply “ has been augmented by connecting up to the mains of the Biddulph U.D.C. and water is obtained in bulk from that authority. An agreement has been entered into with the Congleton R.D.C. to take a supply of water from their reservoir when the proposed scheme is in operation.”

ROWLEY REGIS U.D.—Extensions to various localities, amounting to 1,506 yards, have been made to the water main during the year 1932.

SEDGLEY U.D.—“ Twenty-five more old houses have been connected up with a separate water supply in place of a supply from common stand pipes.”

CANNOCK R.D.—“ Arrangements have been made with the Wolverhampton Corporation to extend their water mains about 250 yards at Bradnop Lane, Essington, to supply two farms and three cottages.”

Slow progress is being made with the connection of houses to the water mains in the parishes of Stretton, Lapley, and Wheaton Aston.

Samples of water from wells scattered throughout the district have been tested by the County Laboratories and many of them have been found to be contaminated. In this connection the Medical Officer of Health has the following remarks to make :—
“ The remedy in the case of old wells must depend on local circumstances and in some instances it is practicable to enforce the use of a piped supply. In some cases it is possible to find and eliminate the cause of the pollution. In others, where there is no piped supply available, it may be practicable to sink a new well in better ground, but there are places where the area of the premises is not sufficiently large or the nature of the land suitable to permit of this.”

Dr. Binks also comments on the water supply at two of the schools in his area, where it is necessary to chlorinate the water.

CHEADLE R.D.—The local authority has had under consideration schemes for improving the water supply to Hollington, Freehay, and Boundary, but in each instance the cost has been found to be prohibitive.

“ *Cheddleton (Folly Lane)*.—An extension of 250 yards of water main has been laid in conjunction with an approved layout within the Leek and Cheadle Joint Town Planning Scheme.”

Werrington (Clough Lane).—100 yards of water main have been laid to supply four bungalows in conjunction with the proposed layout under the Town Planning Scheme.

Kingsley (Barnfields Lane).—An extension of 53 yards of water main has been laid.

GNOSALL R.D.—In connection with the pollution of wells in rural areas, Dr. Gregory comments as follows :—“ In such a scattered area, with many hundreds of wells, it is impossible for the Sanitary Authority to undertake the examination of water samples from all supplies annually. Owners of wells would do a great deal to lessen the chances of pollution becoming serious by attending to the cleaning of the wells at least every year. In this way any gross contamination would be discovered before serious harm had been done.”

LICHFIELD R.D.—The Medical Officer of Health draws attention to the unsatisfactory state of the wells in Yoxall, and repeated samples have shown that the water is contaminated.

MAYFIELD R.D.—Apparently in some parts of this district rain water is used for drinking purposes. In this connection the Medical Officer of Health reports that the only available supply at Calton is rain water.

The Council have taken over certain parts of the main at Oxmead and Mill Yard, and there has been an addition, as a result of this, of 73 consumers taking water from the Council's supply.

A duplicate set of pumping machinery has been installed at the Pumping Station.

NEWCASTLE R.D.—The question of the provision of a pipe supply for the parish of Knighton is under consideration, the wells in the district having shown signs of contamination. It is hoped that a supply may be available from the Bearstone Water Supply Scheme, which is being undertaken by the neighbouring rural district of Nantwich, and also for the villages of Onneley and Betley. The total cost of laying the mains to the villages named is estimated at £2,840.

The Medical Officer of Health remarks that an increased water supply will eventually necessitate modification to the sewage disposal arrangements, and that the Council's attitude towards privy conversion and the installation of baths in houses in these areas will require careful consideration.

Samples of water from wells in the parishes of Butterson and Acton have been found satisfactory on analysis.

SEISDON R.D.—Attention is again drawn to the fact that Pattingham is still without a public water supply, but the parish has now been included in the water supply area of the Wolverhampton Corporation under their Act of 1932.

STAFFORD R.D.—There are a few houses at Aston and Derrington for which it is hoped to provide a supply of water from the mains of the Stafford Borough. This is necessary because the well water is very hard and contains salts which are injurious to health, and because many of the wells show signs of recent sewage pollution.

STONE R.D.—*Eccleshall*.—The Medical Officer of Health reports that the water supply of Eccleshall still remains unsatisfactory. This matter and that of sewage disposal is forming the subject of communication between Stone R.D.C. and the County Council.

TUTBURY R.D.—The supply of water to Rolleston has been taken over by the South Staffordshire Waterworks Company, who have extended their mains from Burton-on-Trent and the supply is now satisfactory.

UTTOXETER R.D.—*Denstone*.—A portion of the district is now supplied by the Uttoxeter U.D.C. mains, and there is a possibility of this supply being used to supply other houses in this district.

“*Stramshall and Bramshall.*—These areas are now supplied in bulk from the Urban District Council’s reservoir. The majority of the houses in both districts have been connected to the new main.”

Rivers Pollution Prevention

A Hydrographical Survey of the River Trent was instituted by the Standing Committee on River Pollution of the Ministry of Agriculture and Fisheries in 1923, and has been continued yearly since that date.

In the accompanying Table the percentage of oxygen saturation in the streams at certain fixed points is shown. The extent of the pollution can be judged when it is remembered that a percentage saturation of oxygen below 65 means that the stream is too polluted to support fish life. On reference to the Table it will be noticed that the heavy pollution of the streams that is now taking place in the industrial areas is observed for a considerable distance down stream. Unfortunately, as the streams in the industrial areas are so small, the degree of purification of effluents before discharge into them has to be much greater than if they found their way into a large river and, consequently, the expense is correspondingly greater. In last year’s Report a summary of the work undertaken by the various Sanitary Authorities during the year was given, and this year similar details are included in the succeeding paragraphs.

PERCENTAGE OF OXYGEN SATURATION.																													
LOCATION.				1923		1924			1925		1926		1927		1928		1929		1930		1931		1932						
				July	May	June	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.					
River Trent at Strongford Bridge				38	28	33	29	47	25	35	41	45	53	40	5	6	30	16	6	19	26	50	20	21	6	37	2		
River Trent at Darlaston above Stone				48	52	50	29	49	29	30	21	29	41	34	5	17	14	26	19	28	37	39	5	39	5	1	3	36	4
River Trent at Aston, below Stone				31	47	50	34	43	37	30	24	29	44	43	29	5	29	16	25	13	34	36	5	36	5	6	6	28	2
River Trent at Great Haywood Mill, before receiving River Sow				43	52	42	37	47	38	12	21	40	33	5	14	41	13	31	31	33	39	50	5	36	5	36	5	37	8
River Trent at Great Haywood Mill, below Weir				..	65	57	60	61	48	33	40	43	48	60	46	5	51	49	56	60	62	57	5	43	2	45	4		
River Sow at G.N. Railway Bridge				44	80	73	58	71	66	71	40	57	52	68	5	63	0	79	62	69	5	64	0	71	1	67	0		
River Sow at Brick Bridge				63	107	93	59	73	102	89	33	75	36	67	5	88	5	66	52	54	5	58	0	87	9	63	5		
River Penk at Radford				49	78	65	60	66	115	86	56	82	26	34	5	66	5	91	73	81	0	74	0	77	9	71	0		
River Sow at St. Thomas				44	88	74	53	69	69	56	22	65	40	52	5	57	5	44	42	49	5	66	5	68	1	60	0		
River Trent at Weetman's Bridge, near Little Haywood				49	68	53	43	50	38	44	27	34	27	51	35	0	48	38	29	51	5	51	0	39	0	44	5		
River Trent at High Bridge, below Rugeley Sewage Works				64	74	69	61	52	53	46	31	48	35	51	45	5	42	36	29	57	5	57	5	47	1	54	5		
River Trent at Wychnor Bridge, above confluence with River Tame				60	89	71	81	85	99	81	70	76	62	78	5	80	5	62	59	79	0	67	0	52	2	58	6		
River Tame at Walsall Road Bridge, Perry Barr, before entering Birmingham				28	44	48	32	37	13	11	21	39	37	31	5	19	26	25	42	50	5	5	0	32	6	23	1		
River Tame at Chetwynd Bridge, above confluence with River Trent				50	64	70	60	45	44	46	37	46	45	53	39	47	39	36	5	50	5	61	0	28	0	52	0		
River Trent at Walton Bridge, below junction with River Tame				..	65	72	74	56	42	39	45	53	56	67	56	5	57	47	45	61	0	57	0	29	7	57	0		
River Trent at Burton Bridge (North Boundary of Burton-on-Trent)				58	70	67	73	65	77	57	54	62	46	71	66	5	56	48	52	63	5	58	0	50	6	57	7		
River Dove at Monks' Bridge, above confluence with River Trent				69	106	99	103	84	100	103	83	100	87	88	5	104	105	84	78	104	0	87	0	89	7	97	4		
River Trent at Willington Bridge, below confluence with River Dove				..	93	74	82	77	82	72	58	63	62	78	5	88	5	76	62	84	0	67	5	57	0	71	7		

RIVER MERSEY WATERSHED.

BIDDULPH U.D.—“Negotiations have been entered into between the Council and the Lancashire County Council with a view to the treatment of sewage from the Biddulph Grange Orthopædic Hospital at the Marsh Green Works.”

KIDSGROVE U.D.—Difficulties have been encountered in discharging a satisfactory effluent from the sewage at Harriseahead, Newchapel, and Whitehill, owing to the closing down of the Birchenwood Colliery. The sewage was formerly discharged, following tank treatment, into the Colliery's reservoirs, and some other provision for further treatment is now necessary. It is proposed to enlarge the Rookery sewage works and to divert the sewage from these villages there, and thus concentrate the treatment of the whole of the sewage of the Newchapel Ward at the Rookery works.

Talke Ward.—The Medical Officer of Health comments as follows :—“This ward was annexed to the Kidsgrove U.D. on the 1st April, 1932, under the provisions of the Staffordshire (North Western Areas) Order, 1932. It previously formed part of the Audley U.D. There is no proper system of sewage treatment in this ward, which has a population of approximately 5,000.

“There are four separate outfalls, namely, (1) into stream, (2) into Colliery reservoir, (3) on land, and (4) on refuse heap.

“The County Council were constantly pressing the late Audley U.D.C. to deal with the matter, but nothing was done so far as the Talke sewage is concerned. It is now imperative that proper provision should be made for dealing with the sewage from this ward.”

NEWCASTLE R.D.—The first portion of a comprehensive sewerage and sewage disposal scheme was completed in October, 1932. This section deals with sewage from the Bignall End and Audley areas, with the exception of that from the portion of Werton which will join a proposed sewer from Miles Green, near Wyn Bank. By this means, pollution of the Briery Brook should now be prevented.

With regard to the further section of the scheme, viz., the sewerage and sewage disposal at Halmerend and Alsagers Bank, the Council have now submitted a revised scheme, estimated to cost £47,740, and the County Council have agreed to make a contribution in respect of this. This scheme, of course, will entail an increase in rates of the Audley rural parish and the matter has been referred to the Parochial Committee for consideration.

With reference to the pollution of a stream at Aston, a scheme for the disposal of the sewage has been prepared, but has not yet been carried out..

With regard to the question of the pollution of a brook at Onneley (referred to in previous Reports), informal notices were served in December, 1932, on the owners of eight premises from which pollution was taking place, and I understand that further notices were served in 1933.

RIVER TRENT WATERSHED.

LEEK U.D.—A scheme for sewerage and sewage disposal, capable of dealing with the whole of the present area, and certain adjoining areas, is still in course of construction.

CHEADLE R.D.

Cheddleton (Basford Bridge, and Folly).—The Council are awaiting the decision of the Ministry of Health as a result of an inquiry held in connection with a proposed sewerage and sewage scheme for Cheddleton on the 30th November, 1932.

Cheddleton (Dale House Estate).—“An extension of 165 yards of 9in. sewer has been laid in conjunction with an approved layout within the Leek and Cheadle Joint Town Planning Scheme.”

Extensions to the main sewer have taken place in various parishes throughout the district, and provision has been made for a small sewerage system at Tean.

NEWCASTLE M.B.—As the outcome of protracted negotiations between the Newcastle Corporation and the City of Stoke-on-Trent, it has now been decided to accept the terms offered by the Stoke-on-Trent City Council for the treatment of the sewage of the enlarged Borough at the City's new sewage disposal works at Strongford. This should do away with most of the gross pollution of the streams passing through this district, as the sewage from all except one of the outfall works, which now discharge at six individual points, will be dealt with at Strongford.

LEEK R.D.—A scheme for sewerage Baddeley Green in the parish of Norton-in-the-Moors was prepared in 1931, and a Ministry of Health inquiry was held as a result of a representation by owners of business premises. The estimated cost of this was about £28,000. The Medical Officer of Health states that no further developments have yet taken place.

CITY OF STOKE-ON-TRENT.—Work is nearing completion on the construction of the new Strongford Works, where the sewage of the Stoke and Fenton districts, and of Newcastle, will be treated.

Improvements and extensions are taking place at the Hanley Sewage Works. This will take the sewage of Smallthorne and thus abate the serious pollution of the Ford Green brook.

STONE R.D.—*Barlaston*.—The Medical Officer of Health reports that a sewage scheme for this village is urgently needed and that a report is now in preparation by a firm of sewerage engineers.

UTTOXETER U.D.—Plans are in preparation for the enlargement of the existing works, as the present system is being used to its utmost capacity.

UTTOXETER R.D.—*Rocester*.—The Medical Officer of Health reports that the system of sewerage is good here, but that the Disposal Works are inadequate.

WOLVERHAMPTON C.B.—The work on the new sewage scheme is nearly completed.

CANNOCK U.D.—With regard to the extension of the main outfall works referred to in my Report for last year, it was found that some alteration in the original scheme was necessary. Owing to the difficulties in laying the main sewer, due to mining subsidence, it was found preferable to convey the sewage from the Heath Hayes area by gravitation, by an alternative route to new outfall works on a site in Newlands Lane, Leacroft. That part of the scheme which referred to the establishment of a sewage disposal works on this site was approved by the Ministry of Health and a loan sanctioned for an amount of £15,510.

STAFFORD R.D.—The Medical Officer of Health notes in his Report that in the village of Walton the sewage system is now “quite inadequate to deal with the number of houses in this rapidly growing area.”

CANNOCK R.D.—A sewerage scheme is advised by the Medical Officer of Health for houses at Wood Lane, in the parish of Saredon, and at Wedges Mills in the adjoining parish of Cheslyn Hay. The Medical Officer of Health also notes that the disposal of the sewage of Coven should be re-considered by the Council in the near future.

RUGELEY U.D.—The remarks of the Medical Officer of Health might be quoted here :—“An enquiry by an Officer of the Ministry of Health was held early in the year to consider a proposed sewage disposal scheme to replace the present inadequate works. As a result, permission was given by the Ministry to the Council to carry out a scheme which represented about one-third of the proposals as laid before the enquiring Inspector. This work has not yet been started, delay having been caused by difficulty in the

Council coming to satisfactory arrangements with the Tannery owners in respect of the latter providing for adequate treatment of the trade effluent from their works before its discharge into the Council's sewer."

LICHFIELD R.D.—There are 12 sewage disposal works in this area. Most of them are satisfactory, but a scheme for sewerage the southern part of Armitage and Handsacre is necessary. At Brereton, where the Hazelslade works are situated, some extension is necessary to cope with the flow of sewage which has been measured and estimated to exceed the capacity of the existing works by nearly 50 per cent. As these works, however, will be in the Cannock U.D. from April, 1934, no action has been taken in the matter.

At Brindley Village, alterations to the works will apparently have to be considered if satisfactory results are to be obtained, and at Brereton Village the conditions of the sewers and the method of sewage disposal leave much to be desired.

Alrewas.—The scheme of the sewerage and sewage disposal works is nearing completion (the County Council have agreed to make a grant towards this work when completed).

TUTBURY R.D.—“A new scheme of sewerage at Barton-under-Needwood has been completed and will shortly come into operation.”

RIVER TAME WATERSHED.

OLDBURY U.D. (Worcs.).—The U.D.C. presented a scheme for the approval of the Ministry of Health for a new sewage disposal works at an estimated cost of £104,000. The Ministry suggested a modified scheme should be undertaken, and this is being prepared. Under this modified scheme a portion of the sewage will be dealt with in the existing secondary sedimentation tanks and percolating filters, and new works will be constructed to deal with the remainder of the flow.

BROWNHILLS U.D.—The Medical Officer of Health reports :—“The number of privies still in the district is large. This is almost entirely due to the want of a proper sewage system in Norton Canes where in years gone by mining subsidences prevented the consideration of an adequate sewage scheme. Now the need for economy has prevented the further consideration of the scheme recently prepared. The sewerage of this part of the district is an urgent matter, and one which must undoubtedly be tackled and dealt with as soon as means permit. This part of the district, for one reason or another, has never enjoyed the amenities shared by the other parts of the district.”

WALSALL R.D.—Re-construction of the Aldridge Sewage Disposal Works was completed in 1932.

DUDLEY C.B. (Worcs.).—"The gross pollution of the Adden Brook by the Dudley Guest Hospital has now been abated and the drainage from the hospital connected to the new disposal works at Priory Estate."

BILSTON U.D.—It is noted from the Medical Officer of Health's report that a scheme for the sewerage of the Bradley Lane area is under consideration.

COSELEY U.D.—A small works at Ettingshall Road (commented on in my Report for 1931) has now been abolished, and the sewage is dealt with at the Bilston sewage works.

DARLASTON U.D.—The Medical Officer of Health again comments on the inadequacy of the filtering area at the sewage works and the consequent contamination of the River Tame.

WALSALL C.B.—A scheme is in preparation for a joint sewage works at Goscote, to deal with sewage in approximately 600 acres in the area of the County Borough and part of the area of the Walsall R.D.

A scheme has been prepared for the extension of the Bescot sewage works by the provision of further bacteria beds and humus tanks, but I understand the matter has been held in abeyance for the time being.

WEST BROMWICH C.B.—Sanction has been received from the Ministry of Health to borrow £37,000 to construct sewers in the Perry Barr portion of the borough, and for £112,000 for a scheme for extending the Friar Park outfall works, and construct outfall works at Ray Hall.

ROWLEY REGIS U.D.—Work upon the enlargement of the inadequate purification plant at the Tividale Sewage Disposal Works of the Upper Stour Valley Main Sewerage Board is now proceeding.

TAMWORTH (Joint).—The pumps at the Joint Committee's station have been found inadequate during heavy storms and new ones, capable of a greater volume of work, are being provided.

RIVER SEVERN WATERSHED.

SEISDON R.D.—The Medical Officer of Health reports :—"The sewerage scheme for Wombourn, I regret to say, has been held up for National economic reasons, but, I understand, will be proceeded with as soon as circumstances permit."

SEDGLEY U.D.—The new sewerage scheme for Gospel End and Gibbons Hill has been completed and the works are now in operation.

QUARRY BANK U.D.—An extension of the sewerage system was carried out from Caledonia Road into the main sewer of the Upper Stour Valley Main Sewerage Board. This will obviate the pollution of the River Stour, which previously took place.

The Medical Officer of Health notes that the Black Brook is still polluted by sewage from the Birch Coppice area.

MINISTRY OF HEALTH INQUIRIES.

The following Inquiries were held by the Ministry of Health during the year 1932 into applications for loans in respect of schemes of sewerage and sewage disposal :—

District.		Date of Inquiry.		Amount of Loan.		Purpose.
Stoke-on-Trent City	..	25.5.32	..	£22,500	..	For works of sewage disposal.
Rugeley U.D.	..	19.7.32	..	£9,900	..	For works of sewage disposal.
Stoke-on-Trent City	..	20.7.32	..	£8,000	..	Reconstruction of culvert, etc., of Fowlea Brook.
Upper Stour Valley Main Sewerage Board		4.8.32	..	£4,540	..	For works of sewerage and sewage disposal (Tividale).
Wednesbury M.B.	..	19.10.32	..	£3,915	..	For works of sewerage.
Tipton U.D.	..	20.10.32	..	£4,000	..	For works of surface water drainage.
Cheadle R.D.	..	13.11.32	..	£2,600	..	For works of sewerage and sewage disposal (Cheddleton).
West Bromwich C.B.	..	25.11.32	..	£37,000	..	For works of sewerage (Perry Barr).
„	„	25.11.32	..	£112,000	..	For works of sewage disposal.

CONTRIBUTIONS TO DISTRICT COUNCILS FOR WATER AND SEWAGE DISPOSAL SCHEMES.

In the Report for 1930 the principles governing contributions towards these schemes were set out in full. During the year applications in respect of six schemes have been under consideration, and in two cases it was agreed to make a contribution. The applications in respect of three schemes were refused, and in one case consideration was deferred. In each instance the conditions require that a similar contribution should be given by the District Council in order that the full cost should not fall upon the Parish concerned, and at the end of the financial year the question should be re-considered.

The schemes for which contributions were granted were both for sewerage and sewage disposal, as follows :—

Sanitary District and Scheme

Tettenhall U.D.—1931-32 and 1932-33.

Housing

Housing (Rural Authorities) Act, 1931.—This Act which was only in force for a few months, provided a fund from which grants could be given to Rural District Councils for houses for rural workers.

Housing (Rural Workers) Act, 1926.—Under this Act contributions can be given by the County Council for the re-conditioning of old houses in rural areas, and for the conversion into dwellings of buildings not previously used for that purpose. During the year grants were given in six instances, affecting seven houses, one application for assistance was refused, and two were withdrawn. The Rural Districts and Parishes concerned will be found in the following table :—

Rural District.		Parish.			No. of Houses.		Amount of Grant.
Cannock	..	Brewood	..	..	1	..	£100
Stafford..	..	Colwich	..	..	1	..	£100
		Tixall	..	..	2	..	£150
Stone	..	Eccleshall	..	..	3	..	£300

HOUSING ACT, 1930.

Under Section 32 of the above Act it is the duty of the County Council to concern itself with working-class housing conditions in each rural district, and where overcrowding or other unsatisfactory housing conditions exist, to examine the efficacy of the action taken or proposed by the District Council responsible, to remedy such evils and provide more housing accommodation.

To enable the County Council to carry out these duties, every rural district is required to furnish the County Council, at intervals, with such information as may be necessary for that purpose.

A *questionnaire* was sent by the County Council to all the Rural Councils in 1931. As noted in my Report for that year, there was a certain lack of uniformity in the information given in the replies to this, and a conference was subsequently held in Stafford to discuss the subject. In the early part of 1933 further amplified *questionnaires* were sent out, and the replies to these will be considered in due course by the Public Health Committee of the County Council.

Some local authorities have recently had their boundaries enlarged, under the Local Government Act, 1929, and have had no opportunity to carry out a survey of their new district, so that their returns under the Housing Act, 1930, are necessarily incomplete, while in others it would appear that their sanitary staffs are insufficient to carry out a detailed housing inspection of the district, as required by the Housing Act, 1925.

Inspection and Supervision of Food

MILK SUPPLY.

(1) Chemical Examination.

During the year 1,458 samples of ordinary milk were chemically examined; 141 of these were not satisfactory. 25 prosecutions were instituted in respect of 25 of these samples, and all were sustained. In 51 instances, as the degree of deficiency in fat content was very small, cautions only were issued, in respect of 101 unsatisfactory samples (two or more samples were taken simultaneously from the same purveyor in several instances). Of the 141 samples referred to above, 14 were "appeals to cows," and one was informal, where no action could be taken.

75 samples of specially designated milk were chemically examined and were all satisfactory, except two samples of "Grade A" and one sample of "Grade A (T.T.)." The producer was cautioned in each case.

The following samples were examined:—12 sterilised milk, 5 condensed milk, 7 skimmed milk, and 2 separated milks. On chemical examination these were all found to be satisfactory except one sample of sterilised milk. The producer was cautioned.

(2) Tuberculosis.

Investigations were carried out in 136 cases where tubercle bacilli were found in samples taken from ordinary milk as it was being delivered to the consumer in the county. Under section 4 of the Milk and Dairies Act, 1915, a veterinary inspection was made of the cows on the farms where the milk was produced; 81 cows were slaughtered under the Tuberculosis Order. Veterinary surgeons reported that in 64 instances the disease was advanced and in 17 not advanced. In 21 instances the animals were disposed of by the farmers for slaughter. In addition, 10 positive samples were received of ordinary milk from sanitary inspectors in the county, and veterinary inspections under the Milk and Dairies Act showed that 3 cows were tuberculous and they were slaughtered under the Tuberculosis Order: 2 of them were in an advanced stage of the disease. Apart from these, one tuberculous animal was disposed of by the owner.

From the examination of samples of specially designated milk obtained by the Foods and Drugs Inspectors when taking monthly samples, it was found that 43 were tuberculous. A veterinary inspection followed in 27 cases, representing 23 farms (of the 16 remaining cases 15 were duplicates and one came from a farm outside the county). 14 cows were slaughtered under the Tuberculosis Order, of which 12 were in an advanced stage of the disease. One cow was slaughtered by the owner following the bacteriological investigation. In addition, as a result of the quarterly veterinary inspection of "Grade A" herds, 2 tuberculous animals were dealt with.

Medical Officers of Health of areas outside the county, where milk produced in Staffordshire was sold, made 73 other representations under Section 4 of the Milk and Dairies Act, 1915.

As a result of the veterinary inspections made, 66 animals were slaughtered under the Tuberculosis Order and 11 were disposed of by the owners for slaughter. It was found that 35 cows were in an advanced stage of the disease, 30 not advanced, and one non-tuberculous.

I noted in my Report for last year that an investigation was carried out as a result of a complaint made by the Medical Officer of Health of Sheffield that tubercle bacilli were found in the milk supplied in bulk from a large depot in this county. In February, 1932, a second complaint was received from the Medical Officer of Health of Sheffield with regard to milk from the same depot. Previously the County Council had authorised a special veterinary examination of the herds at all the farms supplying this depot: this time it was agreed that samples should be taken from each farm's supply before being mixed and bulked at the depot. In this way tubercle bacilli were found in 30 samples from 189 farms. A veterinary inspection took place at the farms from which positive samples were obtained, and as a result of this 23 animals from 17 farms, suffering from tuberculosis, were slaughtered—16 of these were in an advanced state and 7 not advanced.

Action in such a case as this is difficult when no representation by the complaining Medical Officer of Health can be made under Section 4 of the 1915 Act, as, owing to the bulking of supplies entering a town, it is impossible to designate the farms from which the milk was supplied.

In addition to the above investigation, as a result of a representation from an outside authority, a veterinary inspection of a "Grade A" herd was made, and three animals were slaughtered under the Tuberculosis Order—one advanced and two not advanced.

15 representations under Section 4 of the Milk and Dairies Act were made to outside authorities of milk sent into this county for sale, from which samples were taken by the County Council's Inspectors. All these cases were investigated by the authorities concerned, in 8 instances with negative results. In the remaining 7 tuberculosis was found and 11 animals were slaughtered.

During the year, as a result of the examination of milk produced in the county, 190 cows were found to be tuberculous and were dealt with under the Tuberculosis Order, 130 of which were in an advanced stage, that is, 68·4% of the total.

In the accompanying table the number of samples taken of the ordinary milk supply in the various sanitary districts is shown and it will be observed that in 195 of these the milk was found to be tuberculous, that is, 11·9% of the total samples taken.

It will have been noted that a large number of the cows slaughtered were suffering from tuberculosis in an advanced stage. Whilst young animals have a relative immunity to this disease, this is lost as they get older, so that from the Public Health point of view much more supervision is necessary in the case of the older animals, and for this reason experience has shown that in the West Riding of Yorkshire, according to the Report of the Standing Committee of the Council of Agriculture, whilst two routine veterinary inspections in a year may suffice for many of the butter-making farms it is quite inadequate in the case of the milk producing farms where older cows are milked. And this will doubtless be borne in mind in determining the details of the scheme of veterinary inspection now under consideration.

ORDINARY MILK SAMPLES.

1ST JANUARY TO 31ST DECEMBER, 1932.

SANITARY AUTHORITY.	No. of Samples Submitted.	Result of Examination.		T.B. Found.
		Cleanliness.		
		Satisfactory	Unsatisfactory.	
URBAN.				
Amblecote	4	4	—	—
Audley	3	3	—	—
Biddulph	44	35	9	2
Bilston	28	21	7	4
Brierley Hill	29	19	10	3
Brownhills	28	26	2	2
Cannock	43	31	12	3
Coseley	11	9	2	3
Darlaston	15	8	7	1
Kidsgrove	21	18	3	1
Leek	17	10	7	1
Lichfield	37	29	8	4
Quarry Bank	3	2	1	—
Rowley Regis	41	25	16	1
Rugeley	16	16	—	—
Sedgley	41	32	9	5
Short Heath	17	11	6	3
Stafford	91	61	30	8
Stone	21	18	3	3
Tamworth	21	19	2	4
Tettenhall	14	7	7	3
Tipton	21	11	10	4
Uttoxeter	17	14	3	6
Wednesbury	16	11	5	2
Wednesfield	16	12	4	4
Willenhall	13	11	2	1
Wolstanton	10	7	3	1
RURAL.				
Cannock	94	67	27	18
Cheadle	*274	238	36	37
Gnosall	11	3	8	—
Kingswinford	30	24	6	4
Leek	50	33	17	2
Lichfield	148	108	40	19
Mayfield	7	4	3	—
Newcastle	39	27	12	1
Seisdon	79	54	25	12
Shifnal (Staffs.)	13	11	2	—
Stafford	65	49	16	9
Stone	63	49	14	6
Tamworth	41	33	8	3
Tutbury	27	15	12	2
Uttoxeter	24	23	1	2
Walsall	37	30	7	11
Totals	1640	1238	402	195

* Special Investigation.

(3) Cleanliness.

1,640 samples of ordinary milk were bacteriologically examined, of which 1,238 were reported as satisfactory from a cleanliness standpoint and 402 were unsatisfactory. Of the unsatisfactory samples 353 were produced in the county and 49 outside. 75.5% of the samples were reported as clean compared with 77.5% last year.

The names of producers of milk not found to be satisfactory, as in former years, are reported to the County Farm Institute, who then communicate with them and offer them every assistance.

If no improvement in the cleanliness of the milk results, the District Council in whose area the producer resides is communicated with, so that the necessary steps can be taken under the Milk and Dairies Order.

(4) Specially Designated Milk.

At the end of 1931, licences had been granted for the production of the following graded milks :—4 for “Grade A. (T.T.)” and 80 for “Grade A.” milk. On the 31st December, 1932, there were 2 “Certified” licences, 5 “Grade A. (T.T.)” licences, and 82 “Grade A.” certificates in force in the county. With regard to “Grade A.” licences, 7 new ones were issued during the year and 5 were relinquished.

Samples are taken monthly of all graded milks for bacteriological investigation to see if the standard of cleanliness laid down in the regulations is maintained and they are examined specially for tuberculosis quarterly. The results obtained are shown in the accompanying table.

As regards the unsatisfactory samples ; of those due to an excessive count 73 were produced in the county and 52 outside. Tubercle bacilli were found in 44 produced in the county and 4 in milk produced outside.

It is satisfactory to find that the popularity of these graded milks has been maintained and in fact this has resulted in an increase in the number of licence holders who, as already noted, now number 82 for “Grade A.” milk. I find that this number is larger than in most areas of similar size.

SPECIALLY DESIGNATED MILK.

1st January to 31st December, 1932.

	Total	Satisfac- tory	Unsatisfactory			
			Due to Coliform Bacillus	Due to Count	Due to Col. Bac. and Count	Due to T.B.
"Certified"	25	18	1	2	4	—
"Grade A" (T.T.)	163	143	8	2	9	1
"Grade A"	1071	944	39	21	26	43*
"Grade A Pasteurised"	12	10	—	1	1	—
"Pasteurised"	70	55	—	11	—	4
	1341	1170	48	37	40	48*

* Two samples also included under "Due to Coliform Bacillus."

Chemical and bacteriological examinations of food are done in the laboratories established by the County Council at Stafford and the nature of the work undertaken will be found in the reports of the laboratories on a previous page.

Samples analysed under the Food and Drugs Act are shown in the report of the County Analyst already referred to, from which it will be observed that 2,049 samples were submitted, 1,897 of which were found to be genuine and 152 adulterated or below standard.

The action taken is as follows :—

56 retailers were cautioned and 27 proceedings were instituted. All the proceedings were sustained with one exception. Fines amounting to £55 with costs (£51 5s. 6d.) were imposed. 25 proceedings were in respect of milk, one of rum, and one of whisky. Of the 25 milk cases 23 were for added water and 2 for deficiency in fat.

Nutrition

A valuable Circular on Nutrition which summarised all recent work on this subject was issued by the Ministry of Health in October, 1932, and all Assistant Medical Officers in charge of Maternity and Child Welfare Centres were provided with a copy so that full advantage could be taken of the latest researches on this important subject.

Prevention of, and Control over, Infectious Disease

SMALLPOX.—No case of smallpox was recorded in 1932, a similar experience to that of last year.

SCARLET FEVER.—The incidence of this disease in the county was rather less than that in the previous three years. There were

787 notifications as against 1,008 last year, 499 in urban districts and 288 in rural districts. Six deaths occurred in urban and none in rural districts. The case rate per thousand of the population is 1·10 compared with 2·12 for England and Wales as a whole. The death rate in urban and rural districts is 0·01 and *nil* respectively. The prevailing type of the disease was mild.

DIPHTHERIA.—Fewer cases were notified in 1932 than in the previous year, the numbers being 505 as against 722. The decrease was mainly in the urban districts where there were 353 cases compared with 484 in 1931. 152 cases were notified in rural districts as against 238 in the previous year. The case rate was 0·71 compared with 1·08 for England and Wales. Twelve deaths occurred in urban districts with a death rate of 0·02 per thousand of the population. Fifteen died in rural districts, which yields a death rate of 0·07. On reference to the tables at the end of the report the numbers and death rates for each Sanitary District will be found.

It is gratifying to note the comparatively small number of cases that have occurred this year, and, as would be expected, the reduction is chiefly found in the urban districts. The prevailing form of diphtheria, although more severe than scarlet fever, was mild. Cases were notified in all but four of the forty-five Sanitary Districts, but in none can it be said to have attained epidemic form.

By arrangement with the District Medical Officers of Health, the Assistant Medical Officers carried out Schick testing and immunization in children attending schools in the Brierley Hill, Rugeley, and Tettenhall Urban Districts, and the Cannock and Walsall Rural Districts. The work undertaken was a continuation of that started in previous years, except in Amblecote where it was resumed after an interval of three years.

The response by the parents to this scheme has been disappointing, and may be due to the protracted period which must elapse before the complete Schick tests and immunization can be carried out. It is hoped, by eliminating the preliminary Schick tests, to persuade a greater number to accept this valuable means of protection against diphtheria.

Full advantage has been taken of the facilities afforded at the County Laboratory for bacteriological investigations and 10,646 specimens were sent by medical practitioners compared with 13,163 in the previous year. This included 330 virulence tests undertaken in special cases.

ENTERIC FEVER.—Ten notifications of typhoid fever in urban and 6 in rural districts were received during the year, compared

with the total of 12 in 1931. No deaths occurred in urban or rural districts. The case rate was 0·02 compared with 0·06 for England and Wales. On reference to the tables at the end of the report, the areas in which these cases occurred will be seen.

ENCEPHALITIS LETHARGICA.—During the year 8 cases were notified, 6 of which were in urban districts. Thirteen deaths were reported, and the districts in which they occurred will be found in the tables at the end of the report.

DYSENTERY.—During the year 73 cases of dysentery were notified. Fifty-five of these were at the Cheddleton Mental Hospital, and 13 cases were notified from the Babies' Hospital at Canwell Hall in the Tamworth Rural District. Two cases occurred in the Biddulph Urban District, and one in the Cannock Rural District.

CEREBRO-SPINAL FEVER.—During the year 10 cases were notified, 6 in urban and 4 in rural districts: 6 of these recovered. The cases occurred singly. The number of deaths from cerebro-spinal fever registered during the year is 5, so that one of the fatal cases was not notified.

Twelve specimens of cerebro-spinal fluid were examined in the County Bacteriological Laboratory. Special arrangements have been made so that the cerebro-spinal fluid can be sent to the laboratory in a portable incubator, because these organisms do not survive if sent through the post in the ordinary way.

Also 163 swabs were examined, 51 agglutination tests carried out and one case for typing.

With reference to non-notifiable infectious diseases, the deaths from measles, whooping cough, diarrhoea and enteritis are as follows :—

MEASLES.—There were 66 deaths in urban districts with a death rate of 0·13, and 12 deaths in rural districts with a death rate of 0·05. As the disease is not notifiable the number of cases is unknown, but from the returns sent by the Head Teachers of elementary schools I find that a total of 3,642 cases of measles and 52 cases of German measles occurred in children of school age.

At the same time, it must be pointed out that the cases so reported relate only to the County Elementary Education Area, having an estimated population of 456,860 out of 714,300 for the Administrative County, and consequently there must have been many more cases.

WHOOPING COUGH.—In 1932 there were 49 deaths in urban districts with a death rate of 0·10 and 7 deaths in rural districts with a death rate of 0·03. The deaths in urban districts occurred in 15 out of the 28 districts.

Only 7 of the 17 rural districts were affected. The school teachers in the County Elementary Education Area reported 1,214 cases in children of school age, but the disease specially attacks children during infancy, and is more fatal at that period of life. As the disease is not notifiable we have no accurate knowledge of its incidence.

DIARRHŒA AND ENTERITIS.—81 deaths occurred in urban districts with a death rate of 9·2 per thousand live births, and 19 in rural districts with a death rate of 5·3 per thousand births in children under 2 years of age, which shows a greater incidence of this disease than in the previous year. The cases occurred in 17 out of the 28 urban districts and in 8 of the 17 rural districts.

INFLUENZA.—In 1932 there were 169 deaths in urban and 52 in rural districts, a noticeable decrease from the previous year when there were 231 deaths in urban and 80 in rural districts.

The number of cases of Notifiable Infectious Diseases with the deaths, in the Administrative County during 1932, are as follows :—

Diseases.	Notifications.		Deaths.		† Cases admitted to Hospital.
	Urban.	Rural.	Urban.	Rural.	
Small-pox	—	—	—	—	—
Scarlet Fever	499	288	6	—	489
Diphtheria	353	152	12	15	393
Enteric Fever	10	6	—	—	10
Puerperal Fever	17	13	15	6	19
„ Pyrexia	66	21			
Erysipelas	146	77	*	*	15
Cerebro-Spinal Fever	6	4	4	1	7
Poliomyelitis	4	1	2	—	—
Pneumonia	939	304	427	143	21
Encephalitis Lethargica	6	2	11	2	3
Dysentery	2	71	*	*	55

* Not classified in Registrar General's Return.

† Information obtained from District Reports.

OPHTHALMIA NEONATORUM.—The accompanying Table shows the cases for the last 9 years. One hundred and fifty-one out of the total of 194 were not severe, and, as will be noted from the table, 192 were completely cured. In 2 cases the vision was impaired, the condition in each instance being a slight corneal ulcer and opacity. Only 14 cases were in-patients in hospital, 6 were treated in the out-patient department, and the others received treatment at home.

	CASES				Vision un- impaired	Vision impaired	Total Blind- ness	Deaths
	Notified	TREATED						
		At home	In Hospital					
			In-patient	Out-pat'nt				
1924	109	89	20		107	1	—	1
1925	138	96	*42		135	1	—	1
1926	166	149	12	5	162	3	—	1
1927	166	135	13	18	162	3	—	1
1928	145	129	7	9	143	—	—	2
1929	193	170	14	9	190	—	—	3
1930	148	130	17	1	145	1	—	2
1931	191	169	20	2	186	1	—	4
1932	194	174	14	6	192	2	—	—

* One case removed from district ; result not known.

Vaccination

The ineffectiveness of the working of the Vaccination Acts is shown on examination of the Returns of the various Vaccination Officers for the year 1st January to 31st December, 1931, where it is seen that out of 11,234 children born during the year, in whom vaccination was possible, only 33% were subsequently protected against smallpox.

Tuberculosis

At the end of the year there were 6,850 cases of all forms of tuberculosis on the registers of the district Medical Officers of Health, made up as follows :—

TOTAL CASES.	PULMONARY.			NON-PULMONARY.		
	M.	F.	Total.	M.	F.	Total.
6850	2535	2335	4870	1049	931	1980

This indicates that there is one case of tuberculosis in every 104 persons, or just 9·6 per 1,000 of the population, and on reference to the mortality Tables which follow it will be found that approximately one death occurs amongst thirteen cases in the year.

During the year 412 persons died from pulmonary tuberculosis, giving a death rate of 0·58 per thousand of the population, whilst 113 deaths occurred from other forms of tuberculosis with a death rate of 0·16. The ages at death divided into sexes are shown in the following table :—

Table showing primary cases of tuberculosis and deaths from the disease classified according to ages and sex :—

AGE PERIODS.	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0—.....	—	1	9	4	—	2	10	4
1—.....	9	3	32	32	3	—	24	19
5—.....	33	32	30	24	2	7	8	12
10—.....	14	31	24	20				
15—.....	56	69	15	19	35	57	7	6
20—.....	55	63	5	10				
25—.....	72	101	6	9	53	38	1	3
35—.....	67	57	3	4	45	29	3	5
45—.....	60	30	2	3	55	26	1	2
55—.....	36	17	—	1	26	19	4	2
65and upwards.....	8	6	2	—	11	4	2	—
Totals.....	410	410	128	126	230	182	60	53

In the General Tables at the end of the Report, the death rates for each sanitary district during 1932 will be found.

On reference to the tables it will be seen that, as regards the pulmonary form of the disease, the incidence is the same in both males and females, but is more marked in females between the ages of 15 and 35. In this area it appears to be more fatal in young women, but after the age of 35 there are more deaths in the male sex from pulmonary tuberculosis. The non-pulmonary forms of the disease occur mainly before adult life is reached, and are particularly fatal during the first year of life. In the succeeding years, the disease is more chronic, and, whilst resulting in much disability and ill-health, does not often cause death. The non-pulmonary forms arise from infection through tuberculous milk and from open cases of pulmonary tuberculosis.

The following show the number of primary notifications received since 1913 :—

1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1722	1399	1233	1048	873	856	699	642	929	971	1029	974	1232

1926	1927	1928	1929	1930	1931	1932
1400	1106	1194	1017	1021	1129	1074

With regard to notifications, speaking generally this duty is satisfactorily performed in the county. As already noted, the ratio of deaths to notifications is approximately one to thirteen, and this compares favourably with the figure laid down by experts that for every death there are at least ten persons suffering from the disease. The District Medical Officers of Health reported 79 cases as against 78 last year that had come to their knowledge in various ways not having been previously notified. It was found that 62 had died without being formally notified under the Regulations, 41 were taken from the death returns of the local Registrars, and 19 were transferable deaths sent by the Registrar-General, that is to say, that the death occurred outside the district where the person usually resided. Two cases were notified to the Medical Officer of Health actually after the death had occurred.

The ratio of non-notified tuberculosis deaths to the total tuberculosis deaths is 1 in 8·47 ; roughly 7 out of 8 deaths were notified under the regulations before death.

With regard to the unreported cases, I am afraid we cannot expect always to receive the notifications before death especially where the disease is extremely acute, and some cases are bound to occur in which the practitioner was under the impression that the disease had been notified previously.

An account of the treatment afforded for tuberculosis will be found in the annual report of the Joint Committee of the Staffordshire County Council and the Wolverhampton and Dudley County Boroughs. This body is only responsible for treatment and not for measures of prevention, which duty falls upon the District Councils, and their contribution towards the measures for dealing with this complex subject relates to the environmental conditions

of the patient, amongst these being adequate housing in each district, which is of paramount importance. An investigation of the environmental conditions of each patient is made by the Health Visitors as soon as the disease is notified and although every effort is made to arrange the accommodation in the house so that the patient can have a room to himself, this has only been found possible in 29·8% of the cases reviewed in the Joint Committee's area in 1932. In every case in which overcrowding occurred the District Medical Officer's attention was specially drawn to the matter, but for some years now it has been found very difficult to take adequate measures.

At the same time I desire to emphasise the necessity of District Councils utilising to the full all the powers they possess under the Housing Acts, for it is one of the primary duties of a Sanitary Authority to provide adequate housing accommodation for the population in their area.

During the year no action was found to be necessary under the Public Health (Prevention of Tuberculosis) Regulations, 1925, which prohibit persons suffering from tuberculosis engaging in milking operations.

No action was taken under Section 62 of the Public Health Act, 1925, during the year.

The accompanying table shows the death rates in the urban and rural districts of the county since 1914, from which it will be observed that since the war years there has been a gradual fall in both urban and rural districts, and in view of the large number of unemployed during these difficult years this is most satisfactory.

Year.	Death Rate per 1,000 of the Population.			
	Phthisis.		Other forms of Tuberculosis.	
	Urban.	Rural.	Urban.	Rural.
1914	0·89	0·54	0·31	0·20
1915	0·94	0·67	0·34	0·29
1916	1·01	0·80	0·40	0·29
1917	1·01	0·74	0·34	0·31
1918	1·03	0·88	0·31	0·28
1919	0·83	0·61	0·22	0·30
1920	0·75	0·56	0·30	0·21
1921	0·80	0·53	0·23	0·21
1922	0·80	0·55	0·24	0·17
1923	0·75	0·58	0·25	0·22
1924	0·73	0·58	0·22	0·20
1925	0·83	0·49	0·22	0·14
1926	0·74	0·50	0·22	0·11
1927	0·73	0·44	0·21	0·22
1928	0·64	0·48	0·14	0·13
1929	0·76	0·54	0·15	0·12
1930	0·72	0·54	0·15	0·13
1931	0·78	0·52	0·17	0·13
1932	0·64	0·42	0·16	0·14

W. D. CARRUTHERS,

County Medical Officer of Health.

September, 1933.

TABLES.

Table showing Population, Number of Persons per acre, Birth and Death-rates as well as the Death-rates at all ages and among Children under 1 year, and the Death-rates from Zymotic Diseases, Tuberculosis, Diseases of the Respiratory Organs, &c.

URBAN.

DISTRICT	Population at all ages.		Number of Persons per acre.	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	General mortality per 1,000 of population.	Standardized Death Rate.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality.							Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Cirrhosis of Liver.	Acute and Chronic Nephritis.	Congenital Debility and Malformation, Premature Birth
	Census, 1931.	Estimated to middle of 1932 of areas as constituted after changes in boundary.							Per 1000 of population															
									Typhoid and Paratyphoid Fevers.	Smallpox	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria										
Amblecote	3,099	3,017	4.5	12.9	0.66	13.2	..	51	..	..	..	..	..	..	0.66	..	3.98	..	0.99	..	..	..	..	0.33
Audley	13,621	(a) ..	..	10.8	0.88	17.5	17.1	81	..	..	..	..	..	..	1.75	..	3.21	0.29	0.88	..	0.29	0.58	0.29	0.29
Biddulph	8,346	8,327	1.5	19.8	0.84	11.5	..	60	..	1.08	..	..	..	..	0.12	0.12	1.80	0.12	0.84	0.12	..	0.72	0.60	0.60
Bilston	31,255	31,360	16.8	21.4	0.83	11.3	11.6	76	..	0.41	..	0.09	0.09	23.8	0.95	0.19	0.83	0.51	1.56	0.03	0.06	0.28	0.48	0.48
Brierley Hill	14,347	14,330	14.1	16.5	0.91	12.6	12.4	101	..	0.14	..	..	..	..	0.84	..	1.25	1.11	0.91	0.21	..	0.56	0.97	0.97
Brownhills	18,368	18,610	3.0	18.1	0.32	11.2	11.5	83	..	0.05	..	0.27	..	..	0.64	0.11	1.18	0.86	1.13	0.11	..	0.59	0.64	0.64
Cannock	34,585	34,930	4.4	19.3	0.94	9.5	9.3	69	..	..	..	0.03	..	7.4	0.31	0.14	1.17	0.46	0.57	0.17	..	0.23	0.86	0.86
Coseley	25,137	25,570	7.8	18.1	0.98	12.0	12.0	103	..	0.27	..	0.15	..	4.3	0.62	0.04	1.45	0.78	0.82	0.08	..	0.43	0.94	0.94
Darlaston	19,736	19,790	21.7	17.4	0.25	10.5	11.0	61	..	0.05	0.05	0.15	..	2.9	0.86	0.15	1.82	0.76	0.65	0.20	..	0.25	0.65	0.65
Kidsgrove	9,938	(b) 14,830	3.6	17.8	1.03	10.0	..	54	..	0.22	..	0.07	..	8.2	0.59	0.15	1.54	0.66	0.37	0.15	..	0.15	0.37	0.37
Leek	18,567	18,750	12.9	15.5	1.06	12.5	11.9	62	..	0.05	..	0.05	0.05	6.9	0.48	0.21	1.60	0.32	0.58	..	0.05	0.69	0.53	0.53
Lichfield	8,507	8,649	2.5	15.8	0.34	11.4	..	36	..	..	..	0.11	..	..	0.69	..	1.73	0.69	0.58	0.23	..	..	0.11	0.11
Newcastle	23,246	(c) 55,630	6.3	17.7	1.09	11.1	10.7	66	..	0.02	0.02	0.08	0.02	11.9	0.50	0.21	1.38	0.25	0.69	0.12	..	0.27	0.65	0.65
Quarry Bank	8,100	8,272	12.4	15.6	0.60	11.8	..	70	..	..	..	0.24	0.12	..	0.84	0.12	1.45	0.60	0.60	0.12	..	0.12	0.24	0.24

(a) Area ceased to exist 1.4.32. Rates calculated on adjusted population of 3,420.
 (b) Alteration in boundary 13,590.
 (c) 13,590.

District	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Hemorrhage, &c.	Heart Disease.	Aneurism.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhoea, &c. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, &c.	Other Digestive Diseases.	Acute and Chronic Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, &c.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or unknown.	
Rowley Regis	676	30	476	48	2	12	1	38	1	1	1	33	3	47	4	31	74	..	15	32	52	1	6	4	3	4	5	10	10	1	1	..	21	18	5	7	33	2
Rugeley	88	8	56	5	1	1	2	2	2	2	7	18	..	4	1	4	1	..	2	1	..	3	5	..
Sedgley	289	7	217	28	1	1	2	7	8	3	18	1	13	57	..	2	12	25	2	..	2	2	1	3	..	1	13	20	1	7	14	..	
Short Heath ..	101	4	47	4	1	4	1	5	..	3	5	..	3	1	1	1	..	2	1	1	1	1	4	..	5	7	..	
Stafford.....	408	19	328	27	1	9	26	9	2	1	40	6	22	55	1	17	14	10	9	3	1	2	14	13	..	2	18	10	1	13	29	..	
Stone	77	2	71	9	3	1	7	2	3	16	..	2	4	3	1	1	..	1	4	3	7	2	3	1	7	..	
Tamworth	165	9	104	6	1	7	2	..	1	10	2	7	21	..	13	1	5	1	2	..	1	..	1	..	2	3	..	6	4	3	8	..		
Tettenhall....	59	3	60	1	4	1	1	..	2	7	1	3	18	..	1	2	1	2	2	..	2	1	..	2	3	3	..	5	1
Tipton	807	34	474	83	12	1	8	10	1	1	..	34	8	..	1	38	2	23	70	..	9	30	51	4	3	12	3	1	3	9	6	1	..	33	47	..	18	33	3	
Uttoxeter	105	5	67	5	2	2	7	..	1	..	5	..	5	20	..	4	1	2	2	1	2	1	..	3	5	1	..	3	2
Wednesbury..	592	25	346	51	6	1	..	4	19	9	1	1	42	3	22	51	..	8	18	28	6	..	8	3	2	2	11	11	1	1	30	18	6	7	25	2	
Wednesfield...	168	8	88	15	1	1	1	1	1	..	2	7	1	5	14	..	8	2	9	..	1	3	1	1	2	1	6	7	..	7	6	..		
Willenhall	447	19	275	37	3	1	2	7	1	12	5	..	1	30	1	12	52	..	17	8	22	..	4	8	1	..	2	2	8	4	..	24	18	3	6	19	1	
Wolstanton ..	146	9	113	12	1	4	2	3	13	3	7	19	1	6	10	5	4	1	2	1	3	1	..	5	2	2	5	11	..		
Totals	8740	396	5609	665	66	6	49	12	169	11	4	319	81	11	12	633	62	356	1048	2	201	275	427	62	38	81	31	13	26	131	156	15	23	334	297	47	193	400	18	

DISTRICT	Population at all ages.		Mean Area per person in acres	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	General mortality per 1,000 of population.	Standardized Death Rate.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality.						Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Cirrhosis of Liver.	Acute and Chronic Nephritis.	Congenital Debility and Malformation, Premature Birth	
									Per 1000 of population															
	Census, 1931.	Estimated to middle of 1932 of areas as constituted after changes in boundary.							Typhoid and Paratyphoid Fevers.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria										Diarrhoea, &c. (under 2 years)
Blore Heath.....	2,853	(a)	..	16.9	..	12.3	..	91	1.54	1.54	1.54	1.54	
Cannock	20,822	21,170	2.4	19.1	0.75	10.6	9.9	66	..	0.05	0.14	9.9	0.66	0.05	1.32	0.38	0.38	0.85	0.05	0.23	0.66	
Cheadle.....	27,452	27,880	1.9	16.0	1.15	11.3	10.5	89	..	..	0.18	..	0.07	11.2	1.40	0.43	0.43	0.86	0.07	0.03	0.54	0.97
Gnosall.....	4,732	4,723	6.1	18.0	0.21	11.4	..	12	..	0.21	..	..	0.42	0.21	1.69	0.63	0.63	0.63	..	..	..	0.42
Kingswinford	22,804	22,760	0.3	17.2	0.70	10.1	9.6	61	..	..	0.13	..	0.22	7.6	1.01	0.66	0.66	0.88	..	0.09	0.31	0.44
Leek	15,030	15,580	4.4	16.7	1.41	10.8	9.5	42	..	0.06	..	..	0.32	0.19	0.90	0.51	0.51	0.45	0.06	..	0.25	0.25
Lichfield	29,632	29,600	2.4	15.9	0.64	11.0	9.7	62	..	0.03	0.10	4.2	0.40	0.13	1.65	0.34	0.34	0.74	0.07	0.03	0.27	0.44		
Mayfield	3,719	3,666	6.7	14.4	1.09	11.2	..	19	..	..	..	..	..	..	1.36	0.27	0.27	..	..	..	..	..
Newcastle.....	6,117	(b) 16,860	2.4	14.4	1.48	9.2	..	19	..	..	..	..	0.56	0.14	0.98	0.49	0.49	0.35	0.07	..	0.56	0.21
Seisdon	17,845	18,770	2.3	15.4	0.74	10.3	8.6	34	..	..	0.05	..	0.37	..	1.49	0.26	0.26	0.58	..	0.05	0.42	0.42
Shifnal	661	657	8.3	12.2	..	13.7	..	125	..	..	..	..	..	..	3.04	..	..	..	1.52	..	3.04	..
(Staffs. por.)																								
Stafford.....	9,656	9,666	5.6	16.9	0.72	11.7	9.9	55	..	..	..	6.1	0.10	0.10	0.83	0.31	0.31	0.31	0.41	0.10	0.72	0.52
Stone	12,643	(c) 11,910	5.2	13.6	0.91	13.4	11.0	61	..	0.08	0.08	6.1	0.66	0.49	1.24	0.33	0.33	0.58	0.16	0.16	0.41	0.49		
Tamworth	7,280	(d) 5,895	3.4	18.3	0.63	10.4	..	69	..	..	..	8.6	0.47	..	1.42	0.47	0.47	0.47	..	..	0.47	1.10
(Staffs. por.)																								
Tutbury.....	9,244	9,238	2.8	15.4	0.21	14.6	..	28	..	0.11	..	..	0.43	0.32	1.19	0.86	0.86	0.86	..	0.11	0.11	0.43
Uttoxeter	7,179	7,915	6.0	15.6	0.63	11.0	..	16	..	..	..	..	0.25	0.12	1.26	0.38	0.38	0.38	..	..	0.38	..
Walsall.....	14,953	15,310	0.7	16.8	0.78	9.1	9.1	46	..	0.06	..	7.7	0.26	0.13	1.24	0.26	0.26	0.52	0.06	0.06	0.13	0.32		
Totals and Averages ..	212,622	†221,600	2.8	16.3	0.84	10.9	..	54	..	0.03	0.07	5.3	0.42	0.14	1.28	0.42	0.42	0.65	0.07	0.04	0.35	0.49		

(a) Area ceased to exist. 1 4.32 Rates calculated on adjusted population of 650. (b) Area ceased to exist. 1 4.32 Rates calculated on adjusted population of 650.

DISTRICT	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes	Cerebral Hemorrhage, &c.	Heart Disease.	Aneurism.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhoea, &c. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, &c.	Other Digestive Diseases.	Acute and Chronic Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, &c.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or unknown.		
Blore Heath....	11	..	8	1	1	3	1	1	1	..	
Cannock.....	405	16	225	27	1	3	2	14	1	1	28	2	13	36	1	5	8	18	1	1	3	4	9	5	1	1	14	21	3	10	21	..	
Cheadle.....	447	32	315	40	5	2	10	13	6	39	6	10	50	2	25	12	24	2	2	2	5	6	1	1	5	15	1	..	27	6	4	11	25	..	
Gnosall.....	85	1	54	1	1	2	1	8	1	5	10	..	5	3	3	..	1	1	1	2	5	1	1	4	..	
Kingswinford .	392	16	231	24	3	5	10	..	1	10	2	..	2	23	1	21	48	1	9	15	20	..	2	2	3	1	2	1	3	7	..	1	10	6	3	8	13	..	
Leek	261	22	169	11	2	..	1	..	2	5	3	14	2	7	35	..	17	8	7	1	1	2	..	1	6	4	1	1	4	9	5	12	18	2
Lichfield	470	19	325	29	1	3	9	12	4	1	1	49	4	23	78	..	24	10	22	2	2	1	2	3	1	..	10	8	..	1	13	2	2	13	26	..	
Mayfield	53	4	41	1	1	5	1	2	10	1	2	..	1	1	..	1	..	9	..	4	5	..		
Newcastle.....	205	21	131	4	2	1	..	8	2	14	5	13	23	1	1	7	5	1	1	1	1	..	1	2	8	..	1	3	8	2	6	13	2		
Seisdon	290	14	194	10	1	..	1	1	3	7	..	1	..	28	6	15	47	..	4	5	11	..	4	4	..	2	1	..	7	8	8	5	5	13	12	..	
Shifnal	8	..	9	1	2	1	..	1	1	1	2	1	..	1	
(Staffs. por.)																																											
Stafford.....	164	7	113	9	1	..	1	1	8	..	11	29	2	5	3	3	3	4	1	1	1	1	2	4	7	5	9	2	7	5	..	
Stone	164	11	162	10	1	1	2	8	6	15	2	8	41	..	8	4	7	2	2	5	1	2	2	..	6	5	6	4	2	8	16	..	
Tamworth	116	4	66	8	3	9	..	2	14	..	5	3	3	..	1	1	1	1	3	1	..	7	4	..	5	4	..		
(Staffs. por.)																																											
Tutbury.....	142	2	135	4	1	..	5	4	3	1	1	11	1	7	32	..	3	8	8	2	1	1	4	1	1	..	4	14	3	8	10	1	
Uttoxeter	124	5	87	2	5	2	1	10	2	6	23	..	5	3	3	5	3	1	6	3	5	4	..		
Walsall.....	258	12	140	12	1	..	1	4	2	1	..	19	2	11	33	1	9	4	8	1	2	2	1	1	..	4	2	..	1	5	6	1	4	14	..		
Totals	3595	186	2405	194	12	..	7	15	52	2	1	93	32	4	4	282	35	154	513	8	126	94	143	16	23	19	23	10	7	68	78	6	6	109	115	36	116	191	5		

Table showing the number of cases of certain Infectious Diseases notified in each sanitary area during the year 1932, and the Attack-Rates per 1,000 of the population.

URBAN

DISTRICT	Estimated Population in the middle of 1932 for calculating rates	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Polymyelitis Cases	Encephalitis Cases	Puerperal Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Amblecote	3,017	..	..	2	0.66	3	0.99	..	..	..	..	..	..	3	0.99	..	..	..	2
Audley	3,420	..	..	1	0.29	2	0.58	..	..	..	..	..	..	10	2.92	..	1	..	..
Biddulph	8,327	..	..	3	0.36	22	2.64	..	..	..	..	2	0.24	23	2.76	..	..	..	..
Bilston	31,360	..	..	16	0.51	16	0.51	1	0.03	2	0.06	10	0.32	88	2.80	..	..	1	11
Brierley Hill	14,330	..	..	15	1.04	21	1.46	..	..	..	..	2	0.14	18	1.25	..	..	..	1
Brownhills	18,610	..	..	18	0.97	10	0.54	1	0.05	3	0.16	12	0.64	62	3.33	..	..	2	4
Cannock	34,930	..	..	28	0.80	27	0.77	2	0.06	2	0.06	8	0.23	19	0.54	1	..	..	..
Coseley	25,570	..	..	9	0.35	11	0.43	..	..	..	..	15	0.58	40	1.56	..	..	..	3
Darlaston	19,790	..	..	19	0.96	13	0.65	..	..	..	..	2	0.10	34	1.72	..	..	..	..
Kidsgrove	13,590	..	..	6	0.44	9	0.66	..	..	1	0.07	6	0.44	18	1.32	..	..	..	3
Leek	18,750	..	..	17	0.90	62	3.30	..	..	1	0.05	4	0.21	10	0.53	..	1	1	2
Lichfield	8,649	..	..	10	1.15	3	0.34	2	0.23	..	..	2	0.23	7	0.81	..	..	..	..
Newcastle	47,630	..	..	25	0.52	35	0.73	..	..	2	0.04	17	0.35	40	0.84	..	..	..	2
Quarry Bank	8,272	..	..	17	2.05	9	1.09	..	..	..	..	3	0.36	24	2.90	..	..	..	..

URBAN--continued

DISTRICT	Estimated Population in the middle of 1932 for calculating rates	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Polio-myelitis Cases	Encephalitis Cases	Puerperal Pyrexia Cases
		Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia					
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Rowley Regis	41,390	..	..	42	1·01	26	0·63	..	..	..	..	9	0·22	152	3·67	1	..	1	12
Rugeley	5,404	..	..	1	0·18	2	0·37	..	..	..	..	1	0·18	7	1·29	2	..	..	..
Sedgley	19,340	..	..	19	0·98	10	0·52	..	..	..	..	9	0·46	90	4·65	..	..	..	1
Short Heath	5,164	..	..	5	0·97	4	0·77	..	..	..	..	3	0·58	7	1·35	..	..	..	..
Stafford	29,590	..	..	41	1·38	9	0·30	1	0·03	2	0·07	6	0·20	44	1·48	..	1	..	7
Stone	6,271	..	..	2	0·32	3	0·48	..	..	..	..	..	..	14	2·23	..	1	..	1
Tamworth	10,820	..	..	17	1·57	1	0·09	..	..	..	..	5	0·46	13	1·20	2	..	..	..
Tettenhall	5,872	..	..	7	1·19	8	1·36	..	..	..	..	1	0·17	14	2·38	..	..	..	1
Tipton	36,440	..	..	72	1·97	10	0·27	1	0·03	2	0·05	9	0·24	96	2·63	..	..	1	5
Uttoxeter	5,961	..	..	3	0·50	..	..	..	..	..	..	2	0·33	4	0·67	..	..	..	1
Wednesbury	32,120	..	..	26	0·81	8	0·25	2	0·06	1	0·03	11	0·34	40	1·24	..	..	..	..
Wednesfield	9,633	..	..	30	3·11	6	0·62	..	..	..	..	..	..	10	1·04	..	..	..	4
Willenhall	21,450	..	..	45	2·10	23	1·07	..	..	..	..	3	0·14	41	1·91	..	..	..	6
Wolstanton	7,750	..	..	3	0·39	..	..	..	..	1	0·13	4	0·51	11	1·42	..	..	..	..

RURAL

DISTRICT	Estimated Population in the middle of 1932 for calculating rates	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Poliomyelitis Cases	Encephalitis Lethargica Cases	Puerperal Pyrexia Cases
		Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia					
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Blore Heath.....	650	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cannock	21,170	..	..	37	1·75	35	1·65	2	0·09	3	0·14	7	0·33	22	1·04	..	..	..	3
Cheadle.....	27,880	..	..	76	2·72	16	0·57	..	..	3	0·11	21	0·75	81	2·90	1	..	..	4
Gnosall.....	4,723	..	..	6	1·27	1	0·21	..	..	..	..	..	..	9	1·90	..	..	..	1
Kingswinford	22,760	..	..	28	1·23	30	1·32	1	0·04	1	0·04	6	0·26	21	0·92	1	..	..	2
Leek	15,580	..	..	10	0·64	3	0·19	3	0·19	2	0·13	8	0·51	12	0·77	..	..	..	..
Lichfield	29,600	..	..	36	1·21	20	0·67	..	..	1	0·03	16	0·54	56	1·89	..	..	..	1
Mayfield	3,666	..	..	..	..	1	0·27	..	..	..	..	1	0·27	..	..	..	..	..	1
Newcastle	14,220	..	..	5	0·35	1	0·07	..	..	..	..	4	0·28	14	0·98	..	..	1	1
Seisdon	18,770	..	..	23	1·22	18	0·96	..	..	1	0·05	2	0·10	17	0·90	..	..	..	1
Shifnal	657	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(Staffs. por.)		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stafford.....	9,666	..	..	13	1·34	7	0·72	..	..	..	..	..	..	8	0·83	1	1	..	1
Stone	12,080	..	..	9	0·74	4	0·33	..	..	1	0·08	1	0·08	13	1·07	..	..	..	2
Tamworth	6,335	..	..	10	1·58	4	0·63	..	..	..	..	4	0·63	13	2·05	1	..	..	1
(Staffs. por.)		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tutbury.....	9,238	..	..	15	1·62	1	0·11	..	..	..	..	..	..	6	0·65	..	1	..	..
Uttoxeter	7,915	..	..	3	0·38	1	0·12	..	..	..	..	2	0·25	3	0·38	..	..	..	1
Walsall	15,310	..	..	17	1·11	10	0·65	..	..	1	0·06	5	0·32	29	1·89	..	..	..	2

L. Legitimate. I. Illegitimate.

- (a) One H.V. also serves part of Leek R.D.
- (b) Also serves part of Willenhall U.D.
- (c) Also serve districts in Rural Area.
- (d) One H.V. also serves district in Stone R.D.
- (e) One H.V. also serves part of Kingswinford R.D. and one part of Wednesfield U.D.
- (f) Also serves part of Uttoxeter R.D.

(f) Also serves part of Pittoxeter R.D.

† Ceased to exist 1.4.32. Audley and Halmerend Centres to Newcastle R.D.
Talke Centre to Kidsgrove U.D.

‡ " " " "

* Alterations of Boundary as from 1.4.32.

